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ADDRESS IN MEDICINE.

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In searching the records of this Association to find how my predecessors have discharged the duties of the position which the partiality of my fellows in the Section on Practice of Medicine, Materia Medica and Physiology has assigned to me, in order that I might profit by their illustrious examples, I find that with rare exceptions, these addresses have not been (what the Association originally intended they should be) a review of the advances and discoveries made during the past year in the branches of medicine in this section; but have consisted of discussions of a single topic which has recently most prominently occupied the attention of the profession. If I should follow the example thus set me I would be greatly puzzled in making the selection of such a topic; for there are really so many subjects of transcendent importance crowding upon our notice, of either one of which so much could be said, that I should finally neither satisfy myself nor the audience I address by the selection I should make. Moreover, as most of these topics would necessarily have to be discussed in a manner more or less speculati e, it occurs to me that few would take any interest in *my* speculations upon any of them. I shall, therefore, as briefly as I can, glance at some of the discoveries, or pretended discoveries, advances, or hoped for advances, in our departments of medical science, not of this year alone, but during the past few years. For while the time of the announcement of a discovery or advance, may constitute an important epoch long enough to be remembered afterwards, it is only after long trial during which the real value of the discovery is to be tested, that we can accept it as of proven and established value.

ANTIPYRETICS.

Unquestionably the means of safely reducing and keeping down morbidly high temperatures constitute the most powerful weapons we possess in combatting a large majority of the diseases to which mankind is heir to. As I grow older and my experience enlarges I become more and more convinced that fever is the lethal agent which destroys life in almost every disease in which that functional derangement is present. Whether in specific diseases or common inflammations it is most frequently the morbid high temperature by its wasting destruction of tissue, the arrest of nutrition and the associated derangements of function that determine the fatal result. Of course in the so called specific fevers it is the sole destructive agency. In consumption (which in temperate climates destroys nearly one-sixth of the population) it is the accompanying fever and its grade which determines the duration of the disease. Ninety cases in a hundred of pulmonary consumption die from asthenia long before the destructive processes going on in the lungs have deprived the patient of a sufficient amount of his respiratory apparatus to destroy his life. He dies not of apnœa but of asthenia. Even in ordinary inflammations it is usually the fever that kills and not the destruction of the organ inflamed; while the fever, although perhaps at first directly caused by the inflammation, reacts upon it, continues and intensifies it.

Until a very few years ago we had but a single agent that could be used sucessfully as an antipyretic, and this was so uncertain and so irritating to the gastric mucous membrane that it often failed us, and still more frequently could not be tolerated in doses sufficiently large to do its work. Indirect antipyretics of great activity we possessed in veratrum viride, aconite and digitalis, but these were too energetically poisonous to be safely used on all occasions. Apyretics—that is medicines which increased heat loss—we had in abundance; but these could not be continued long, for although the nervous system may be protected from the directly injurious effects of heat, by them, they did not arrest the too active combustion going on and the patient died of exhaustion almost as soon as if left alone. We may heap ice on our steam boiler and thus prevent the formation of steam, or perhaps cause its recondensation as soon as formed, but we do not stop the consumption of coal in the furnace underneath. And so, too, we may by bathing, sponging or sweating keep down the temperature of the body externally, but the combustion is still going on internally, not quite so rapidly perhaps, but still at a sufficient rate in protracted fevers to produce final exhaustion and death. What we wanted then was something more certain and effective than quinine, less disagreeable to the stomach, and less injurious to the nervous system, and free from any poisonous effect, that would put out the fire by stopping combustion—an antipyretic.

This most desirable agent has been found in a substance discovered by Knorr, of Erlangen, Germany, which he named antipyrin. Early in November, 1884, I began its use in all diseases attended with fever, and my own estimate of its value may be inferred when I say that since that date I have not seen a single person die of enteric fever, scarlatina or measles, only one of croupous pneumonia (seen too late), and that the duration of cases of phthisis seems to be very nearly doubled. In acute inflammatory rheumatism it seems to be scarcely less efficient than sodium salicylate. The dose should be about one gramme, repeated at first every hour until three doses have been taken, and afterwards every three or four hours. It is very soluble in water, has a slightly pungent and bitterish taste and rarely excites nausea. If it should do so it may be given in lime water or combined with other alkalies.

Another substance belonging to this class of remedies has recently been brought to our attention under the name of acetanilid, and has been sold in some of the shops as antifebrin. From a few observations it has been found to be even more powerful in antipyretic action than antipyrin. It has the advantage of being very much cheaper than the latter, which is unfortunately a patented article; but it has the disadvantage of being entirely insoluble in water and alkaline solutions; and for children, therefore, who cannot swallow pills or capsules it is much more difficult of administration.

CARDIAC STIMULANTS.

During the past year two new cardiac stimulants have been brought to our attention, for one of which the valuable claim was made, that it energized the heart without increasing arterial tension. I have used the substance, which has been called strophantin, but have not been able to realize the valuable properties claimed for it. Spartein sulphate I have used in a single case only, but it produced in my patient such an intense, agonizing headache that I have not ventured to prescribe it a second time. It is hardly possible that we shall ever find a better remedy for all cardiac lesions than digitalis, which combines the two valuable powers of energizing the heart and stimulating the action of the kidneys at the same time.

PHTHISIS.

The etiology, prevention and cure of pulmonary phthisis must always be to us as well as to the people at large a subject of paramount interest. As already stated it is the cause of death throughout the temperate zones of our planet of nearly one-sixth of the population. It destroys more people probably than war, pestilence and famine combined. All the so called zymotic diseases together, including cholera, yellow fever, malarial fever, small-pox, diphtheria, scarlatina and measles, do not destroy so many of our race as this deadly foe to human life. If an epidemic of cholera or small-pox should break out in your city and produce an annual mortality one-half of that produced by consumption alone, public indignation would be aroused against the inefficiency of your health boards, and millions of dollars would be expended in stamping out the pestilence. Yet this terrible pest is silently doing its deadly work but excites no public attention—no public protest against its ravages.

It was sincerely hoped that when Koch announced his discovery of a peculiar microbe in the lungs and sputa of tuberculous patients, and by experiment on some of the lower animals had, as he supposed, established an etiological relation between this microbe and tuberculosis, that one step had been made in advance towards preventing at least, if not curing, this dreadful disease. His discovery was hailed with delight, and his conclusions were accepted without question (and I might add, almost without reason) by a large majority of the ablest and oldest members of the profession. For a long time we heard of scarcely anything but the bacillus tuberculosus and the contagiousness of phthisis. In order to make facts conform to theories, even the able and rational views of Virchow and Niemeyer in regard to the nature of tubercle were discarded, and the older and cruder doctrines of Laennec were revived, that everything is tubercle that has or can undergo the caseous transformation or degeneration. The idea that the bacillus tuberculosis might be the special agent which attacks and destroys dead cellular masses that have undergone the caseous degeneration, whatever may have been their origin; just as the vibrio and its congeners attack pus; the yeast plant saccharine solutions, which in turn, when fermentation ends, is attacked by the bacterium of active fermentation; the oïdium albirans particles of putrefying milk in the mouth of an infant; and the micrococcus the plastic exudations of croup and diphtheria, was scouted by the followers of Koch as absolutely absurd. And yet, more recent and careful experiments seem to show that this is probably the truth, and that the bacillus tuberculosus is only pathogenic when previous pathological changes have produced the conditions favorable for the growth of the microbe, or the animal is placed under such conditions as to invite and cause those pathological changes.

The recent experiments of Dr. Truesdale, of New York, related in a paper read before the Climatological Society at its last meeting in Baltimore, show this, we think, with tolerable clearness. This gentleman took fifteen rabbits, which he divided in three equal groups. Five were inoculated with Koch's bacilli and placed in a damp, dark cellar and insufficiently fed on unwholesome food. They all became sick and died with tubercles. Five others were placed in a damp pit and badly fed, but were not inoculated with tubercle. One of these died and all became sickly. When killed no tubercle bacilli were found, and, as far as he could see, no tubercles. The last five were inoculated with tubercle bacilli and turned out on a rich pasture, with plenty of air and abundant, wholesome food. They remained perfectly healthy, and when killed showed no tubercles or bacilli. Sternberg's experiment several years ago showed virtually the same thing.

Now, what is the rational deduction to be drawn from these facts? That tuberculosis is a contagious

and infectious disease solely, and that the agent of this infection is the bacillus tuberculosis? Surely not, because even rabbits, who are more prone to tuberculosis than any other animal, except, perhaps, their congener, the guinea-pig, cannot be infected by inoculation when placed in good hygienic conditions, and sufficiently supplied with wholesome food. But it may be said that other animals not reckoned among those liable to tuberculosis, as the dog and cat, have been infected with inoculations of bacilli. This is true, but in order to accomplish this the microbes must be introduced into a serous membrane, where they excite pain, fever and inflammations, usually attended with cellular exudations, which in turn undergo caseation; so that here, too, they find the conditions favorable to their growth. If tuberculosis is a contagious and infectious disease, it must differ from all other diseases of this class. Every one will take variola, or measles, or scarlatina, when sufficiently exposed, unless protected by vaccination in the one case or previous attacks in the others. Yet comparatively few take the tubercular disease, even in those regions where it is most abounding; and an occasional case occurs in regions where it does not abound, and where infection would seem to be physically impossible. And yet, man is preëminently a tuberculous animal, and far more human creatures die of the disease than of any other animals when left in their natural conditions.

But while denying, as I do, that the bacillus tuberculosis is the sole, or even a frequent etiological factor in initiating tuberculosis, I do not assert that it has no pathogenic significance. I have already expressed my belief that this microbe is the agent which destroys and breaks down matter that has undergone caseation, converting it into a semi-purulent, putrid mass, whose contact with the living tissues around it is sure to set up inflammatory and ulcerative processes, and whose absorption into the blood, with or without the bacillus, will lead to that general degradation and depravation of the circulatory fluid which is sure eventually to lead to certain quasi-inflammatory processes elsewhere of which miliary tuberculosis is a most frequent result, and cellular exudation an invariable one. To a person, therefore, who has had the misfortune to contract a catarrho pneumonia which has left behind it a cellular exudation into the alveoli of the lungs which has undergone the caseous degeneration; or even a so-called scrofulous gland which has undergone the same process, the introduction of the bacillus of Koch will be fraught with the most terrible consequences. That one may carry a caseous mass in his lungs for years, and yet enjoy fairly good health, is well known to all practitioners of long experience. I recall two such cases: In February, 1862, a soldier in the Confederate Army contracted a catarrho pneumonia from which he recovered with a permanent consolidation of the upper lobe of his left lung. Two years ago I had an opportunity to examine this man, and found the induration still there, but his health was fairly good. I have no doubt in the world that the introduction of the bacillus tuberculosis in this man's blood would at once set up pulmonary phthisis. The other was a ship carpenter in Baltimore, who for nineteen years had a complete induration of the lower lobe of his left lung, but still remained in sufficiently good health to follow that laborious occupation. At last, however, the mass began suddenly to break down, and he died in about four months from pulmonary phthisis. The case of this man was particularly interesting and instructive, as showing that the danger from bad hygienic surroundings, and especially from bad air, is even greater than the danger of direct contagion. He married a young woman who was then in good health and remained so for six years. At the end of that time she was attacked with uterine hæmorrhages which made serious inroads upon her health, and finally culminated in an attack of true miliary tuberculosis of the lungs which destroyed her life in about four months. Notwithstanding he occupied the same room and bed with his wife during her illness, he remained in his ordinary health for two and a half years afterwards, when, his business becoming dull, he obtained an appointment in the Maryland oyster navy as common seaman. Two months of sleeping in the fetid atmosphere of the dark, damp forecastle of his vessel brought on the rapid consumption which ended his life. While, then, it cannot be denied that infection may, and probably does set up consumption in those who have suffered either of the accidents I have mentioned (viz.: catarrho-pneumonia and scrofulosis), we must remember, after all, that it is bad hygienic surroundings which cause the pathological lesions which constitute the basis of fully 90 per cent. of all the cases of consumption we meet with, and invites the injurious action of the pathogenic microbe which brings to a fatal termination lesions which might otherwise remain quiescent for many years, and even be not inconsistent with a fair degree of longevity.

Here, then, is a field in which we can work for the good of our common humanity. Let us try to teach our people, in building our cities and towns, to avoid the construction of narrow alleys into which the sunlight never comes; that living in damp cellars and basements, where not only is ventilation impossible, but into which will infallibly gravitate the deadly carbonic dioxides exhaled by men and animals in the neighboring streets, which not only directly poison the nerve centres and produce deficient functional activity of all the glandular organs, but diminish the amount of oxygen inhaled, impairing the aeration of the blood, and thus causing pulmonary stasis which must end in some form of the pneumonic process.

BERGEON'S TREATMENT.

Acting upon the theory of Koch and his followers, that consumption is caused by a microbe in the alveoli of the lungs, numerous plans of treatment which have for their object the destruction of these microbes have been devised. All of these promise some success in the beginning, because it gives the unfortunate a new hope to cling to, and places them in a state of pleased expectancy which for a time buoys them up, and even reacts upon their morbid physiological processes. For no sick person is so hopeful as a consumptive. It is not surprising, therefore, that

these several plans of treatment should be precipitately heralded to the world as most pronounced successes.

The latest of these plans is that proposed by Dr. Bergeon, of France, who, in the latter part of 1886, announced that he was curing consumption by injecting into the lower bowel a mixed gas consisting of sulphuretted hydrogen and carbon dioxide. The theory upon which this treatment is based is that this gas is absorbed through the intestinal mucous membrane and exhaled through the pulmonary surfaces, and, coming in contact with the pathogenic microbes there, destroys them. Dr. Bergeon must have forgotten that these microbes are not found in the alveoli free from disease, and where, if at all, the gas must be exhaled, but in the solid tubercular masses occupying these air sacs, into which the gas can hardly penetrate, and from which no exhalations take place. Even then, admitting that his mixed gases can destroy the microbes, which seems highly improbable, in view of the fact that they are continually exposed to an atmosphere so highly charged with carbonic dioxide that its retention in the lungs for five minutes will produce unconsciousness, it is not clear how they are to reach the objects intended to be destroyed. Accordingly, we find that in other hands the plan has proved to be a wretched failure. As physician to Bayview Asylum (the Baltimore city almshouse) I have given the plan a fair trial in several cases, and I can report nothing in favor of the treatment. One case was, I thought, injuriously affected by it, and died apparently a little sooner than if he had been left alone. While the antiseptic, or rather the aseptic, treatment may have a certain value in surgery and obstetrics, in medicine it must always remain an impossibility. For, admitting all that is claimed as to the agency of microbes in setting up and keeping up disease processes, it must be remembered that they are biologically as high in the plane of life, and if all experiments can be believed, have a higher resisting power than the cells which compose the living elements of our tissues. Any germicide, therefore, which can destroy the one, must inevitably also destroy the other.

In conclusion, I desire to call attention to what I consider to be a vicious custom that has grown up among the chairmen of our Sections. When elected to this position last year at St. Louis, I was surprised to be told that I and the Secretary of the Section were expected to write letters to prominent members of the profession throughout the country requesting and urging them to write papers to be read before the Section; and that it is a common practice pursued by all the chairmen. It occurred to me that by this course I might secure a large number of papers, possibly, but from gentlemen who, wishing to please, would write something under stress, and not because they had anything which they really wished to communicate to the profession. Years ago, when the membership of our Association was small, this practice of inviting contributions may have been necessary; but now, when our membership runs high up in the thousands, these solicitations ought to be unnecessary. There must always be, among the four thousand odd members, a sufficient number who have, or think they have, something which they wish to tell and which is worth hearing. I have therefore ignored the old custom, and have not written a single letter soliciting contributions. The result has been that we have more papers than the Section can possibly read and discuss, and which have the advantage of being entirely spontaneous, and inspired only by the enthusiasm and energy of their authors.

ORIGINAL ARTICLES.

CONTRIBUTIONS TO THE CLINICAL HISTORY OF SYPHILIS.

BY H. GRADLE, M.D.,
OF CHICAGO.

(*Concluded from page 652.*)

The following case has but an incomplete record, but the past history and the array of symptoms presented by the patient give it some clinical interest. The diagnosis of syphilis was disputed by the patient, but seemed to be inevitable.

Case 3.—Persistent headache for months, with nocturnal exacerbations. Repeated transient attacks of hemi-paresis. Sudden blindness receding spontaneously. Paralysis of branches of the oculo-motor, and some other cerebral nerves.

History.—A. W., a laborer. æt. 32, had always been in good health, with the exception of malaria in 1878 and a short relapse in 1879. He denies syphilitic infection strenuously, but admits of having run the chances of it during his youth. He has two healthy children. He has never smoked or drank to excess. Eight months ago he was attacked by severe frontal headache lasting almost steadily, and always worse at night. About five weeks ago this became more limited to the left side, and has since diminished gradually. He has suffered from sleeplessness, but is better now. Four months ago he felt a sudden weakness of the left side of the body, which passed off soon, but recurred four times the same day. Since that time he has had some dizziness occasionally. Two months ago, while at work, his sight failed him almost completely. He had to grope his way, but did manage to get home without guidance. The left eye recovered in three or four days. The sight of the right eye improved likewise, but is even yet not quite normal. As his sight returned, objects appeared to him double, for which annoyance, principally, he consulted me. At first the right eye could not be opened fully on account of weakness of the lid. This trouble has now passed from the right to the left side.

Present Condition.—October 19, 1886. The eyes appear normal externally and the pupils respond to light. The left eye has a V. $\frac{20}{35}$, normal field, color and light sense. Ophthalmoscopically, the only peculiarity is tortuosity of the retinal arteries. Otherwise the disc, retina and vessels are normal, which is also true of the right side. The retinal arteries, however, appear a trifle narrower in the right eye

than in the left. The refraction in both eyes is that of very slight hypermetropic astigmatism. Field and light-sense are normal in the right eye, but colors appear dimmer than with the left eye; they are, however, correctly seen. V. is $\frac{20}{50}$, undoubtedly on account of a faint corneal opacity dating back to childhood. Yet the visual power is not normal in either eye, for the patient cannot read more than a few lines with either eye, the other being covered, before everything becomes misty, even with convex glasses. Especially is this true of the right eye. On the left side there is incomplete ptosis and paralysis of the superior rectus muscle; the right superior rectus is merely paretic, but still obeys some. But the right external rectus is entirely paralyzed. Although the right eye can turn towards the left side on looking to the left, it does not move at all during efforts at convergence.

The patient is a muscular man who has, however, lost in strength and in weight to the extent of some twenty-five lbs. since the disease began. Besides the paralysis of the ocular nerves he presents slight paresis of the labial and nasal branches of the right facial nerve. The tongue deviates to the left side. The palate is normal in its movements. Apart from the general weakness there exists no other muscular disturbance. The knee-jerk is, if anything, exaggerated on both sides. His sexual power and desire have gradually failed, and are now gone entirely. There is no sensory anomaly.

The heart and, as far as could be learned, all other visceral organs, are normal. He is somewhat constipated, but seems to feel no direct effects from it. His urine, of a sp. gravity of 1023, is chemically normal, but has an abundant but very delicate precipitate, which consists microscopically of fragments of structureless pliable membrane, to which the stained amorphous urates cling. The significance of this deposit I have not been able to learn.

The patient was put upon iodide of potassium, 1.3 four times a day, and one dose of calomel was given for the bowels. Two days later there was no change, beyond slight increase of the ptosis of the left lid. Mercurial inunctions were now begun twice daily, and quinine ordered three times per day, in the dose of 0.3 grams. To keep the bowels regular, sulphate of sodium was to be taken in hot water on rising. Four days later he showed a decided improvement in his malaise, headache, sleeplessness and general condition, but objectively there was no change. For the quinine, strychnia was now substituted to the extent of 3 milligrams twice a day. He was seen the last time on November 4, *i. e.*, after 16 days of treatment, when he felt better in every way subjectively, but was anxious to have his diplopia cured. He was told that this could not be promised with certainty, as the lesion might possibly be irreparable on account of the duration of the disease, but that he could go to work if he felt strong enough. He was ordered to continue the iodide of potassium and strychnia, and to suspend the mercury. But he did not return after that day.

Although the patient did not remember any syphilitic infection or symptoms, and no characteristic lesions could be found externally, I believe that the continuous headache, worse at night, the apoplectiform attacks without loss of consciousness at the age of 32 years, the exaggerated knee jerk, and the multiplicity and changeability of the pareses of the ocular nerves, admit of no other diagnosis but gummatous meningitis, probably with extensive syphilitic disease of the cerebral arteries. He was markedly benefited, as far as comfort and subjective feeling were concerned, by the antisyphilitic treatment, though no objective change occurred. But, whatever way the various nerve-paralyses of the ocular and facial nerves were produced, they had probably led to partial degeneration by the time I saw the patient. The recovery, if at all possible, could hence not be expected within any short period of time. According to the patient's statement he had probably had some iodide of potassium from another physician before I saw him. But of this I am not certain. The data do not seem to me sufficient to determine accurately which particular lesion caused the sudden transient blindness. There was nothing visible in the eye to indicate its character. The tortuosity of the retinal arteries may have preëxisted. The veins were certainly normal. Of special interest is the dissociation of the two nerve paths controlling the internal rectus muscle of the right eye. Although the patient could turn the right eye freely towards the left, he was not able to perform the same movement on attempting to converge the two eyes for an object approaching in the median line. The symptom suggests an encroachment of the disease upon the nuclei of the ocular nerves beneath the third ventricle, for it is there only where the nerve tracks of convergence and of independent action of the internal rectus are separated from each other.

The following two cases would not present any features of special interest had the syphilis followed its ordinary clinical course. They illustrate, however, the occurrence of very late tertiary symptoms after unusual mildness or absence of earlier symptoms. Hence their diagnostic value.

Case 4.—Gumma at the Root of the Tongue. Mr. S., æt. 32, had noticed for some two months some irritation of the lower part of the throat, lately amounting to pain on swallowing, with radiation of pain towards the ears. He had always enjoyed good health. On December 12, 1885, I found his ears normal. There was slight hypertrophic catarrh of the pharynx, but on looking down with the laryngoscope there was seen a flat nodule, about the size of an almond, at the root of the tongue just in front of the epiglottis. It had about the color of the mucous membrane in that region, but its centre was ulcerated, with steep edges. It felt hard to the finger. No enlarged glands could be detected under the jaw. Was it epithelioma, gumma, or, less likely, tubercular infiltration? The patient, perfectly honest and thoroughly frightened, knew nothing of previous syphilis, and he seemed to be sufficiently self-observing to entitle his judgment to credit. He had had a gonorrhœa during his youth, but never anything else. Moreover, his wife and child were healthy.

Dr. Fenger was asked in consultation, but he, too,

was unable to decide the diagnosis absolutely. He advised, however, antisyphilitic treatment, until he could examine microscopically a bit of the nodule which he snipped off at the time. Mercurial inunction and the use of iodide of potassium to the extent of 1.5 four times per day were at once begun. Within three days the diagnosis was assured by the subjective improvement of the patient, the report of Dr. Fenger of finding the tumor to be a granuloma and the recollection of Mr. S. that some years ago he had had persistent pains in the bone of the leg. However no nodes could be found on the tibia. The steady improvement now continued until the gumma entirely disappeared in the course of three weeks.

Case 5.—Gummatous Infiltration of the Soft Palate. Mr. B. has complained for several months of obstruction of the nose, loss of smell, discomfort in the palate and throat. sometimes slight pain and lately obstruction of the right ear and diminished hearing. He is 32 years old, has never been sick since childhood and has a healthy wife and child.

Present Condition.—Nov. 1, 1886. The ears, especially the right one, show the effect of closure of the Eustachian tube. The use of the catheter relieves subjectively and improves the hearing, and I may as well add at once that daily catheterization rendered the ears perfect in a fortnight. The nasal mucous membrane was reddened, the passage narrowed by enlargement of the cavernous tissue. The rear part of the inferior meati was filled with crusts, not however presenting the smell of ozæna. The rear of the nose could not be examined very fully on account of the narrow configuration. There was some hypertrophic catarrh of the pharynx. The soft palate was swollen in its central part and congested, but the livid color indicated venous stasis rather than arterial hyperæmia. There was no tenderness indicative of an abscess. At the juncture of the front and rear pillars of the palate on the right side there was a small ulcer. The patient was so sensitive and inclined to vomit, that the rhinoscopic mirror could not be used then and even later on it was so disagreeable to him that I did not make any further attempts.

I could but diagnosticate an infiltration of the soft palate, probably of syphilitic nature, with consecutive irritation of pharynx and nose. But the patient had absolutely no syphilitic history. Both from personal acquaintance, and his evident anxiety, I feel confident of the correctness of his statements. Moreover, there were no other objective evidences of the disease. I concluded to wait a few days, using in the meantime the Eustachian catheter, the post-nasal syringe, an insufflation of nitrate of silver followed by iodoform, and directing him to wear absorbent cotton in the nostrils to prevent the formation of crusts. He improved in comfort but during the next week the infiltration of the soft palate increased, the ulcer over the right tonsil deepened into a fistula about 1.5 centimeter deep and two other small ulcers appeared on the oral surface of the palate. I now ordered inunctions of mercury and four grammes of iodide of potassium per day. The patient delayed this order a couple of days, during which time the ulceration and infiltration of increased. On Nov. 11, he began the specific treatment and within three days its influence was noticeable. About one month later the parts were practically normal. The local treatment had been continued two to three times per week and had no doubt caused the nasal and pharyngeal catarrh to disappear at the same rate as the gumma, since its omission during several days was always noticeable to the patient.

When did these two patients acquire syphilis? For I fully believe their ignorance of the disease. There was not the least indication of congenital disease on the skin, teeth or eye, and nothing suggesting this view in their own or their family histories. Perhaps infection occurred accidentally during childhood, followed by a very benign syphilis as it is often observed in children. Possibly they may have had chancres too insignificant to be noticed, and not followed by secondary symptoms. I have seen two cases of typical hard chancres not followed by secondary consequences. Believing fully in the dual nature of venereal sores, I would not speak of these as hard chancres had they not presented all the characteristic appearance, viz., indurated base, indolent ulceration not progressive in extent, and a long period of incubation after suspicious intercourse. These cases can be briefly detailed.

Case 6.—Gonorrhœa one week after intercourse. Typical hard chancre in the uretha one inch behind the orifice occurring during the second week of the gonorrhœa and lasting about two weeks under iodoform insufflation. Painless induration of the inguinal glands. No Syphilis. This happened to a young man in 1881. I have since seen him socially and professionally very often, and can vouch for his present health. He married one and a half years later and his wife and two children are healthy.

Case 7.—Typical hard chancre behind the glans about twelve days after intercourse. Slight induration of the inguinal glands. No Syphilis. The patient had been circumcised and there was no chance for a clean excision of the chancre. It lasted about twenty-five days. As he is a married man I explained to him the great responsibility. This happened in Feb., 1885, and I have since watched him in vain for syphilis. He has remained free to date.

Will these two patients ever present tertiary symptoms?

Although I see but rarely any patients with syphilis except it involves the eye or ear, it may be of interest to detail my limited experience in the abortion of syphilis by excision of the initial lesion. I have done this five times. One case was a failure. Four were followed by unqualified success. The operation is simple enough when anatomically feasible. I have operated of course antiseptically and used sutures where the edges of the small wound gaped.

Excision of Chancres.—Case 1.—Dispensary patient of whom no full record was kept. Man 23 years of age. Typical hard chancre on the rather short prepuce near the frenulum which was excisd in September, 1877. No (?) buboes. Union by first intention. Seen of and on during the next three months during which time no secondary symptoms appeared.

Case 2.—Mr. B., circumcised, contracted a hard chancre on the scrotum two weeks after exposure. Excised on the fourth day (July 3, 1880). The wound reopened in spite of stitches and changed into a characteristic chancre, which required five weeks to heal. Three days after excision a bubo appeared in the left groin. Six weeks after the operation roseola and sore throat indicated constitutional syphilis.

Case 3.—Mr. S., a married man of 48 years of age, observed a pimple on the prepuce three weeks after an illegitimate intercourse. On the sixth day of the disease I found a flat nodule of the size of half a pea with funnel shaped ulcerated centre and well marked induration. No buboes. Excision. (July 19, 1880.) Wound became ulcerated and assumed appearance of a large hard chancre which healed slowly by the middle of August under the use of iodoform, but not until it had been cauterized with nitric acid. A soft chancre was excluded by the hardness of the base and the absence of any progressive ulceration. No buboes formed. The patient observed himself closely and came often for examination during the next three months. I have seen him a number of times since and have never found any evidence of syphilis.

Case. 4.—Mr. M. had had a gonorrhœa since six weeks. He was about well when he exposed himself again two weeks ago. This rekindled the urethal discharge and produced an inflamed and tender bubo on the *right* side. Since six days (about eight or nine days of incubation) he detected a pimple on the *left* side of the frenulum on the foreskin (which had been circumcised at birth). At the time I saw him (Feb. 8, 1884,) this pimple had developed into a typical hard chancre. In the left groin four or five very small but hard glands could be felt which he thought had always been there. Excision. The wound did not close entirely by first intention, but remained healthy and aseptic under iodoform. Within a week it was healed. But the bubo on the right side began to trouble him so that he went to a hospital, where it was opened. This suppurating gland being on the other side of the median line, could not have been started by the hard chancre, but must be attributed to the gonorrhœa. I saw the patient various times while in the hospital, where he stayed five weeks, and again in October the same year, without finding any evidence of syphilis.

Case 5.—Mr. T. complained of discomfort and an oozing from the penis two weeks after intercourse, and called on me about three days later. The prepuce was long and tight and could be stripped back only with difficulty. On its inner surface near the edge there was an ulcer with hard base and all appearances of a hard chancre. After washing with corrosive sublimate solution ($\frac{1}{10}$ per cent.) I returned the foreskin over the glans, applied pellets of cotton moistened with cocaine solution to the mucous surface, and without much pain to the patient removed the chancre by performing ordinary circumcision, closing the wound with a few stitches. There were no buboes at the time (Jan. 13, 1885). The wound did not heal entirely by first intention, but did not become hardened or unhealthy in appearance. It was closed by Jan. 30. The patient fully warned as to the significance of syphilis should any symptoms occur, did not return to my office until April, 1887, for some other complaint. He had not had any indications of constitutional syphilis.

Typical hard chancres not followed by constitutional syphilis, as in cases 6 and 7, occur too rarely to explain the success of this small series of excisions.

TREPHINING IN A CASE OF INTER-MENINGEAL HÆMATOMA, WITH HEMIPLEGIA. RECOVERY.

Read in the Section on Surgery and Anatomy, at the Thirty-Eighth Annual Meeting of the American Medical Association.

BY S. T. ARMSTRONG, M.D., PH.D.,

PASSED ASSISTANT SURGEON U. S. MARINE HOSPITAL SERVICE.

In presenting to this Section the history of a single case, it is hoped that the interest attached to the subject of cerebral localization from a surgical standpoint, as well as the comparative rarity of recorded operations for the conditions herein reported, will prove to be sufficient excuse for soliciting your indulgence.

Case.—George Jones, negro, aged 53 years, a native of Virginia, shoemaker by occupation, on February 27, 1887, was struck on the left forehead by a brick, the edge of the missile producing an irregular, lacerated wound, about one-half an inch above the external edge of the eyebrow. He was unconscious for a short time; cold water dressings were applied to staunch the hæmorrhage from the wound, and he was put to bed.

I was called to see the patient on the morning of February 28, and found his general condition good, but the wound unpromising on account of being filled with dirt particles acquired from the brick. Probing detected no denudation of, or other injury to, the skull. The wound was cleansed as much as possible, and dressed antiseptically. There was no subsequent malaise, though slight annoyance from roaring in the left side of the head; he walked half a mile to my office, when subsequent dressings were required; and the wound having healed by granulation, he was discharged, recovered, on March 14.

He consulted me again on April 24, stating that the roaring in the head had continued, and that on April 18, while walking, he suddenly noticed a tendency of the right foot to drag slightly. On the 19th, while eating breakfast, his head fell forward on the table, and his right arm and leg seemed paralyzed; that morning he had a slight chill followed by fever. Since the 19th, the right foot dragged a little more, and he would notice an occasional loss of control of the muscles of the right leg and arm.

At this examination the presence of *arcus senilis* was noticed; the pupils were small, but responded well to light. The right ear heard the watch at six inches; the left at three. The tongue was protruded straight, and the facial muscles were not involved. The heart's action was regular; pulse 90, tense, and

arteries rigid. Muscular power of hands (tested by my own, no dynamometer at hand) the same. Either from dulness of the patient, or the existence of slight anæsthesia, no satisfactory results were obtained from the æsthesiometer. In walking he drags the right foot slightly. On April 26, the paralysis of the lower extremity was more marked, and on the 28th the right arm was found to be less powerful than the left. The symptoms, as presented, had evidenced a cortical cerebral lesion, affecting the middle frontal convolution (which lay beneath the site of the original injury) and extending upward and backward gradually involving the ascending frontal convolution. The lesion seemed thus circumscribed because if it involved the inferior frontal convolution there would have been aphasic symptoms present.

In view of the chilly sensations every morning, the septic character of the wound, and the slow but late development of the hemiplegia, it seemed probable that septic matter had been absorbed, and an internal purulent inflammation developed. The condition was carefully explained to him, and an operation advised as a *dernier ressort*. On April 29, Dr. Nalle, of Memphis, was called in consultation, and he agreed in the necessity for an operation. Dr. J. L. Minor made an ophthalmoscopic examination, and found: "the right eye, optic nerve red, border indistinct, vein large and slightly tortuous—diagnosis, low grade of optic neuritis; left eye, optic nerve red, border indistinct, prominent from œdematous infiltration, veins large and tortuous—diagnosis, optic neuritis."

On May 1, assisted by Drs. J. L. Minor and R. M. Pate, of Memphis, the patient having been bathed, bowels vacuated, scalp shaved, etc., chloroform anæsthesia was produced, and a curved incision made, the convexity towards the eyebrow, and the incision extending upwards on the scalp so that, if necessary, it could be continued to a point over the upper portion of the ascending frontal convolution; if the operation demonstrated no lesion over the middle frontal convolution, and trephining would have to be repeated higher up. Some time was spent in controlling the free hæmorrhage resulting from the incision; the periosteum was eventually reflected, Galt's trephine applied, and the button of bone removed. A small branch of the meningeal artery presented on the dura-mater, and hæmorrhage from it was controlled by applications of hot water.

No intra-cranial fracture of the bone was found. The dura-mater was dark colored, and had no communicated pulsation from the brain. The long needle of a large sized hypodermic syringe, was passed through the dura-mater, and on withdrawing the piston the chamber of the syringe was filled with dark brown blood. Removing the needle similarly colored blood was ejected from the puncture in the dura-mater, and with a bistoury the hole was slightly enlarged, permitting the pulsations of the brain to throw out the fluid in larger quantities, until it was almost evacuated. Four strands of disinfected horsehair were passed through the dural incision in order to secure drainage, boracic acid applied to the wound, the flaps replaced, a layer of absorbent cotton loosely covered it, and bandage applied. The operation had lasted an hour, and several times hypodermatic injections of brandy were given. The patient seemed to be quite weak at the completion, and he was ordered brandy every half hour. At 7:30 o'clock in the evening he was visited: the dressings were stained with dark blood discharged from the meningeal space. He was feeling perfectly comfortable, his pulse was 72, temperature 98.6° F., and his muscular control of the right arm and leg *had returned*. Morph. sulph. gr. ⅓ at bed time.

May 2. He reported having rested well during the night. No pain in the wound. Pulse 78, temperature 98.4°. Had eaten a light breakfast. He was kept quiet—in bed—for a week; the wound was dressed every third day; and on May 8, he sat up, and was able to walk about the house with undiminished muscular control. No untoward symptom subsequently presented, the man being now as well as ever, A microscopical examination of the blood withdrawn by the syringe showed it to consist of a brown colored serum and colorless red blood corpuscles. It seemed devoid of fibrin ferment, as it did not coagulate.

In regard to finding blood, instead of pus, this corroborated the dictum of Nancrede (International Cyclopædia of Surgery, Vol. V, p. 50): "A differential diagnosis can, under the most favorable circumstances, be only probable, and in most instances impossible."

Pathologically the case is still obscure, and the comprehensive term of inter-meningeal hæmatoma was adopted as most closely covering the condition as evidenced. Agnew (Surgery, Vol. I, p. 287) explains the condition as "a vascular paralysis so modifying the vital properties of the walls of the blood-vessels of the brain, as to favor the free escape of their liquid contents." Considering the non-coagulability of the blood—and had the hæmorrhage been from a ruptured vein or artery, clot would have been present—this explanation is worthy of consideration. Pachymeningitis would have presented somewhat identical symptoms, as in the case of Professor Grainger Stewart referred to below.

The literature of this subject is scanty, though the surgical popularity of trephining from most ancient times is well-known, and it is scarcely improbable that similar cases have presented earlier symptoms of compression and have been successfully operated upon. Indeed, Kurt Sprengel, in the elaborate history of the operation, refers[1] to Meekren (circ. 1519), Binninger (circ. 1673), Jean Murat (1711), Jean Jacques Wepfer (1717), Jean Maurice Hoffman (1719), and Laurant Heister (1758), having trephined for the relief of effusion in cases of injury to the head without fracture of the skull. Nancrede (op. cit.) refers to successful operations by Morand (Opusculi de Chir., Paris, 1768. T. 1. p. 171), Ogle (Brodie, *Med-chir. Trans.*, Vol. XIV, p. 391), and Bruns (Handbuch der prehtisch. Chir. Ab. I, S. 931). Dr. Physick, in the latter part of the last century, in a case of contusion of the head without

[1] Histoire de la Médecine, Traduite par Jourdan. Paris, 1815. T VII, p. 25, et. seq.

evident fracture, trephined for the relief of cerebral symptoms, extracted a blood clot, and the patient recovered.

In contemporary literature Jones, (*Lancet*, 1881, II, p. 40), in a male, aged 19, in whom insensibility, convulsions, and paralysis of the right side, followed a fall on the head, trephined over the middle meningeal artery. Death followed. Necropsy showed tear of longitudinal sinus.

N. Weljaminow (*St. Petersburg med. Wochen.*, 1881, VI, p. 455–7) reports a successful case of trephining for intra-cranial hæmorrhage. And Weir (Gross' Surgery, Vol. II, p. 44), trephined for relief of coma and slight hemiplegia, removed a clot between the brain and dura. Death in a few days.

Sylvestrini (*Bull. de l' Acad. de Méd., Paris*, 1883, p. 439), reported a case of kick from a horse over the right temporo-frontal region of a boy aged 15. Two months after the injury, temporary right hemiplegia. Five months later, paralysis of right arm and leg and lower part of right side of the face, complete aphasia, incontinence of urine and fæces, right hemi-epilepsy. He trephined over the centres for the upper and lower extremities, extracted piecemeal a hard organized clot. Patient died on fourth day from purulent meningitis and brain abscess.

Hulke (*Lancet*, 1883, Vol. II, p. 814), in a case of blow over the right temple followed by right hemiplegia and coma, and later spastic rigidity of the left arm, trephined and evacuated inflammatory fluid by dural incision. The cerebral symptoms disappeared and the patient recovered.

Surgeon Major J. Ewart (*Ind. Ann. Med. Sci.*, Calcutta, 1873–4, XVI, p. 165), trephined to relieve symptoms of extravasation of blood in a case of injury to brain caused by a fall from a horse. Partial relief of symptoms; death of patient.

Bryant (*Lancet*, 1884, Vol. II, p. 823), in a case of scalp wound followed by brain symptoms, trephined on the thirteenth day affording temporary relief, but the patient died on the twenty-fourth day after the accident, from meningitis and bronchopneumonia.

Grainger Stewart (*British Med. Jour.*, Vol. 1, 1887, p. 877), in the case of a man who fell, striking the head, slightly wounding the scalp, but suffering no inconvenience for two weeks, when severe headache commenced, and later feebleness of legs and staggering walk succeeded by right hemiplegia, trephined two months after injury over posterior part of third left frontal convolution. Incising the dura-mater a hæmorrhagic effusion was evacuated. Motor power returned after operation. The patient died on the sixth day of leptomeningitis.

This list is possibly incomplete, including only reports of such cases as were accessible. However, they demonstrate that in cases of injury to the head, without injury to the skull, in which late symptoms of cortical brain complications appear, the locality of the trouble may be ascertained by the rules of cerebral localization, and operative interference will offer hope of improvement if not of complete recovery.

MEDICAL PROGRESS.

ANTIPYRIN AND ANTIFEBRIN IN HEADACHE AND EPILEPSY.—In a paper on this subject DR. ALLEN MCLANE HAMILTON says: In January last Ungar related his experience with antipyrin in the treatment of hemicrania, and in March Dr. C. B. Lyman, who had been induced to try the remedy after the publication of Ungar's success, administered it in several cases of neuralgia of the cervical, facial, and supra-orbital or mixed varieties, with more or less benefit. The first of these observers experimented with it as a successor to the salicylates, which have proved to be of great value in his hands in several varieties of headache, and he witnessed no evil results from doses of even 23 grains. Lyman used an initial dose of 15 grains, repeated two or three times if necessary, and relieved the paroxysms, but did not prevent their recurrence. In March last I began a trial of this drug, and afterward its successor, antifebrin, in a variety of headaches, in insomnia, and in epilepsy. Some of these cases had been treated with more or less success with the salicylate of sodium, and the usual remedies, and the cases of epilepsy were under modified bromide or other treatment. The cases of headache selected were those of migraine of angeio-spastic and angeio-paretic varieties, as well as ordinary facial or sub-occipital neuralgias; and the cases of epilepsy which were chosen were those of the symptomatic form complicated with objective and subjective indication of cerebral disease, as well as the simpler forms which seemed to be dependent upon continued states of cerebral ischæmia, cerebral instability, etc.

In angeio-spastic migraine with evidences of cutaneous anæmia, dilated pupils, and coldness, the headache commencing in the morning, I found both antipyrin and antifebrin would quickly abort the paroxysms after the first dose.

In four cases of epilepsy in which either antipyrin or antifebrin was used there was some improvement in three of the cases, in each of which there was post-epileptic headache; and aggravation of the disease in the fourth, the patient's paroxysms being symptomatic of coarse cerebral disease. In one case of pure hystero-epilepsy the beneficial action of the remedies were absent.

I have also used both drugs in cases of habitual insomnia in doses varying from 3 to 8 grains of the antifebrin, and 10 to 20 of the antipyrin, without appreciable result, though in a case of maniacal excitement, due to nervous exhaustion and connected with moderate rise of temperature (102° F.), 15 grains of antipyrin repeated twice produced refreshing sleep and a subsidence of excitement. There can be no doubt, however, that in wakefulness due to general disease, especially with high temperature (and I have seen such), the value of both of these drugs as hypnotics is very great.

It would seem as if both remedies were of value in headaches or cerebral states attended by anæmia, or in the excitement due to cell mal-nutrition and exhaustion; and, though antipyrin seems to be the

more serviceable remedy, it possesses drawbacks which do not belong to antifebrine. It would appear as if the remedies were valueless or even harmful in cases of organic or symptomatic epilepsy, but worthy of a trial in the light cases attended by rather general cerebral vascular spasm and not much muscular movement. In several cases of *petit mal* the good effect of continued doses of antipyrin and antifebrine is manifest, for the losses of consciousness are far less frequent than when the patients were under other treatment. So far as tolerance goes, I have given to one patient 45 grains of antipyrin in two hours without ill effects.—*N. Y. Medical Journal*, May 28, 1887.

CARBOLIC ACID INHALATIONS IN WHOOPING-COUGH.—In the *Deutsche Med. Wochenschrift*, No. 21, 1886, DR. R. PICK, of Koblentz, published several cases which seem to show that the inhalation of concentrated carbolic acid solutions has a powerful curative action in whooping-cough. Dr. Kniaziolucki, of St. Zofia's Hospital in Lvov, in Galicia, (*Wiadomosis Lekarskie*,) No. 3, 1886, p. 82), accordingly tried the same method in a severe case of his own occurring in a weak, emaciated, febrile girl, aged 9. The affection had lasted for about four weeks, and the paroxysms occurred about twenty-eight times a day. The inhalations of carbolic acid, either pure or diluted with an equal amount of distilled water, were repeated hourly, the administration being continued for ten minutes on each occasion. The number of paroxysms during the subsequent days fell to 20, 19, 12, 12, 6 respectively, and from the sixth day of the treatment the patient had not a single attack. The temperature became normal on the third day. After ten days' stay in the hospital the girl was discharged quite well. No poisonous symptoms were observed either in this case or in those related by Dr. Pick. Equally satisfactory results were obtained by Dr. W. Jakobski, of Odessa (*Wiadomosis Lekarskie*, No. 9, 1887, p. 280), who used a 50 per cent. solution of the acid, the inhalations being carried out for ten minutes every two hours. In one of his cases the daily number of paroxysms fell rapidly from thirty-two to six. Dr. Jakobski differs from Pick and Kniaziolucki only as regard the details of the method. They principally employ a mask resembling that used for giving chloroform; this is placed over the patient's nose and mouth. Dr. Jakobski, on the other hand, finding that this apparatus frightened children and led them to resist the application, devised an instrument like a toy, consisting of a pastboard tube with gold paper gummed over it, and fitted with a handle. Within the tube are two thread nets, and between them a layer of Bruns' cotton-wool, which is moistened with the carbolic solution. Jakobski found that with this there was no difficulty in getting the little patients to take the inhalations.—*British Medical Journal*, April 30, 1887.

IODOL IN LARYNGEAL TUBERCULOSIS.—In the *Journal of Laryngology* for February, 1887, LUBLINSKI'S conclusions are given as follows: Iodol is scarcely soluble in water, but is dissolved by alcohol and ether. Schmidt proposed a mixture of iodol, 1 part; alcohol, 16 parts; glycerine, 34 parts. This is, however, too weak. Lublinski has used the powder pure for laryngeal insufflation. It causes no pain or cough, and it remains a long time in contact with the surface. He has used it in the treatment of fifteen cases of tuberculosis. He administered one insufflation daily, or, in some cases, two or three times a week. Under its influence ulceration quickly heals, the base becoming clean and granulating, dysphagia disappears, and the patient's health improves. Tannin, boric acid, lactic acid, and other applications will produce this effect, but not so rapidly as iodol, the action of which is striking. He gives details of two cases of tuberculosis in particular, in which iodol produced rapid curative effects. In both there was extensive ulceration. The author also regards iodol as useful in ozæna and scrofulous rhinitis, with ulcers on the septum.

JÁMBÚL SEEDS IN DIABETES.—In 1883 Mr Banatrala called attention to jámbúl as a remedy in chronic diabetes. DR. GEORGE C. KINGSBURY thinks the drug has not received as much attention from the profession as it deserves. The seeds are the product of *Eugenia jambolana*, and must not be confounded with "jumble heads" or jequirity seeds, an infusion of which was introduced a few years ago as an application for granular lids.

He lately tried powdered jámbúl seeds in a case of diabetes in which the patient had been ill for over six months, was greatly emaciated, and quite prostrate. He was suffering from great thirst and ravenous appetite; there was also great restlessness. The urine had a specific gravity of 1040 to 1042, and from seven to seven and one-half quarts were passed in the twenty-four hours. Five grains were given six times in the twenty-four hours for a fortnight. At the end of that period, the patient was able to get up, and walk out for an hour at a time, was neither thirsty nor abnormally hungry, and was passing four to five quarts of urine of a specific gravity of 1020; he could sleep well, and felt strong. During the time he was taking the jámbúl his diet was not restricted in any way.—*British Medical Journal*, March 19, 1887.

IODIDE OF SODIUM.—Iodide of sodium is considered by DR. RICHARDSON as a valuable substitute for, or adjunct to, iodide of potassium. In chronic eczema and painful rheumatic affections it often answers well when iodide of potassium does not agree with the digestion. Combined with arsenic it is useful in lepra and psoriasis. Externally applied, in cases of indolent ulcer, chronic syphilitic sores, and offensive discharges from the nostrils, it acts as a good antiseptic. The following is a useful formula for the purpose: Sodium iodide, ℥ss; tincture of myrrh, ℥i; rectified spirit, ℥ii; distilled water, ℥vi; to make a solution of eight ounces. Used in the form of fine spray from Seigle's steam spray-inhaler, Dr. R. found it of the greatest service in a case of syphilitic ulceration of the fauces.—*Provincial Med. Jour.*, Mar. 1, 1887.

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THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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AMERICAN MEDICAL ASSOCIATION.

The thirty-eighth annual session of the American Medical Association, held in Chicago, June 7 to 10 inclusive, proved to be one of the largest, most pleasant, and most profitable that has been held during the history of the Association. The large auditorium of Central Music Hall was full to overflowing during the general meetings, and the several Section rooms were better attended and supplied with more interesting papers than usual. The aggregate number in attendance was not only unusually large, but it embraced members from almost every State and Territory in the Union. Instead of being substantially a Western gathering, there were present a fair number of representatives from every State east and southeast from Maine to Florida, except Delaware, and from all other States except Oregon in the extreme Northwest. The quantity and quality of the scientific and practical work accomplished will compare favorably with that of any preceding meeting; and the evening receptions, both general and private, were well arranged and appeared to give entire satisfaction to those for whom they had been prepared. The following officers were elected for the ensuing year: President, A. Y. P. Garnett, of Washington, D. C. Vice-Presidents—Duncan Eve, of Nashville, Tenn.; David Collville, New York; Charles O'Hagan, North Carolina; and A. Stedman, of Colorado. Permanent Secretary—W. B. Atkinson, Philadelphia. Assistant Secretary—Jos. Ransohoff, Cincinnati. Treasurer, Richard J. Dunglison, Philadelphia. Librarian—C. H. A. Kleinschmidt, Washington, D. C.

Cincinnati, O., was selected as the place for the next annual meeting, and Dr. W. W. Dawson, of that city, was appointed Chairman of the Committee of Arrangements. The full official record of proceedings will be published in the next number of THE JOURNAL.

THE BERGEON METHOD AGAIN.

It was with some surprise that many members of the Association heard the Chairman of the Section on Practical Medicine, in his address last week, utterly condemn the Bergeon method, after making the indefinite statement that he had given it a "fair trial." The *rationale* of the gaseous treatment of phthisis has been given so fully in former issues of THE JOURNAL that it is quite needless to go over the ground again. But it seems that certain facts in regard to the method need repetition.

Whatever may be the reasons assigned for the use of any method or drug, the value of it must depend on the results obtained in actual practice. If a theory seem to be correct and success be not obtained by a practical application of the theory, we may be certain that: 1. The theory is wrong; or 2. That the test was incorrectly applied. On the other hand, while a method may be theoretically wrong, what seems to be a practical application of it may be productive of good results. And if such be the case, what does it matter, practically, if the theory is wrong? If we can do the same amount of work, and good work, by putting the cart before the horse, let us travel in that way until some one shows us how we can do better work by a reversal of the process. Why, then, should Bergeon's method be dismissed with the assertions: "The theory upon which this treatment is based is that this gas is absorbed through the intestinal mucous membrane, and exhaled through the pulmonary surfaces, and coming in contact with the pathogenic microbes there destroys them. Dr. Bergeon must have forgotten that these microbes are not found in the alveoli free from disease, and where, if at all, the gas must be exhaled, but in the solid tubercular masses occupying these air sacks, into which the gas can hardly penetrate, and from which no exhalations can take place. Even then, admitting that his mixed gases can destroy the microbes, which seems highly improbable in view of the fact that they are continually exposed to an atmosphere so highly charged with carbonic dioxide that its retention in the lungs for five minutes will produce unconsciousness, it does not seem very clear how they are to reach the objects intended to be destroyed. Accordingly we find that in other hands the plan has proved to be a wretched failure." These statements need

no other criticism than to say that in the hands of a number of men, other than Bergeon, this method has given good, if not satisfactory, results.

As we have already said in a former editorial, it is too early to draw definite and exact conclusions as to the value of Bergeon's method. But however wrong Bergeon's theory may be, if it be wrong (and so high an authority as Cornil has not found objections to it) the fact remains that good results have been obtained by the practical application of the method. More than this, the scientific world is not satisfied with such assertions as that one or two men have given a method a "fair trial." The details of the trial should be given, after which it is no difficult matter to see whether or not mistakes were made in the experiment. Mankind is too prone to error to accept unsupported assertions. Too fresh in our memory, in connection with this subject, is the statement made four years ago by an eminent pathologist that he had caused tuberculosis in rabbits by the inoculation of inert substances—and the subsequent proof that his methods were faulty and his statements incorrect.

Is antiseptic, or aseptic, medicine an impossibility? Is it true that anything which will destroy microbes must necessarily also destroy the cells of living body-tissue? Do we not know already that different microbes are differently affected by so-called germicides, and by different agents? And do we not constantly see such things in relations to creatures of a higher plane? Why should we assert positively that whatever will kill germs must destroy living body-cells, when we know that parasites of a higher order can be destroyed and expelled from the body without injury to the patient. There are men living to-day who would have asserted twenty-five years ago—fifteen years ago—that aseptic surgery was impossible; and there are still those who endeavor, despite the light set before them, that antiseptic surgery and obstretrics is a myth—a delusion. There are very, very few things of which we can assert impossibility. And, certainly, the labors of Selmi, Gautier, Tanret, Brieger, Brouardel, Martini, Dujardin-Beaumetz and Goetze may be said to be a sufficient answer to those who assert that antiseptic medicine is impossible.

There is, as we said a few weeks since, a tendency among American physicians to run after novelties. But while avoiding a headlong rush after new things let us avoid the opposite extreme, and by all means let us not decry honest work. Whatever is bad must be shown, proved, to be bad by actual experiment and trial; what is good we must remain in ignorance of until it is shown to be good. But the day is past when assertions can prove or disprove anything to scientific men.

To conclude this matter, as to Bergeon's method and antiseptic medicine, we may quote the conclusions of Dr. E. L. Trudeau, of Saranac Lake, N. Y., in a paper entitled "A case of Phthisis treated for eight weeks by Rectal Injections of Gas. With Notes and Experiments," which may be found in the *Medical News*, April 23, 1887: *The gas as it enters the body appears to have no germicidal value whatever.* A satisfactory conclusion as to the real therapeutic merit of this method, cannot necessarily be reached for many months to come, but so far as the evidence procured by its application to one case for so short a time may be of value, it would seem that rectal injections of gas by Bergeon's method have a beneficial influence on the suppurative processes of phthisis. The method seems deserving of a most thorough and extended investigation, and *though the treatment may prove in the future to be a useful therapeutic measure, a consideration of the facts here presented does not in the least warrant the assumption that a specific for tuberculosis has been discovered.*

FOOD ADULTERATION.

A recent issue of the New York *World* contained a list of adulterants found in articles of food and drink, which is instructive reading to the public generally, and to sanitarians particularly. It is of interest to every dweller in a civilized community, and of quite as much importance to this country as its commerce, the improvements of its rivers and harbors, or any questions of coast defense. On reading the list one is amazed at the ingenuity and dishonesty of civilized, Christian man. The majority of our foods and condiments, of our articles of drink, are so adulterated that it may now well be said: he is a wise man who knows what he is eating. It has not been very long since we commented on this subject—but so long as the evil exists it is of importance that repeated attention be called to it. Below we give the list as printed in the *World*:

Coffee (ground).—Chicory, peas, beans, date-stones, biscuits, figs, roasted hominy, burnt sugar, acorns, mangel-wurzel, dandelion, turnips, parsnips, carrots, and rye and potato flours.

Tea.—Exhausted tea leaves (faced or colored and fixed up with plumbago, gum, indigo, Prussian blue, turmeric, China clay, mica, soapstone or French chalk, sulphate of lime, rose pink, Venetian red, carbonate of copper, arsenite of copper, chromate and bi-chromate of potash, and carbonate of lime and magnesia), leaves of the elder, willow, sloe, and other plants and trees, lie tea, paddy husk, sweepings of the tea-house floors, sand, quartz, starch, and magnetic oxide of iron.

Sugar (cane).—Grape or starch glucose, wheat and potato flours, tapioca starch, blood, pipeclay, marble dust, gypsum, bone dust, lead, iron, lime, sand.

Cocoa and chocolate.—Arrowroot, sago, starch, chicory,

ferruginous earths, chalk, oxide of iron, sulphate of lime, wheat and Indian flours, tapioca, cocoa husks, old sea biscuit, potatoes, molasses, and animal fats, such as tallow and lard.

Wheat flour.—Adulterated with inferior or old flour, potato flour, ground beans, peas, rye, barley and rice, alum, chalk, gypsum, soapstone and carbonate of magnesia.

Buckwheat.—Wheat and other flours.

Honey.—Cane sugar, chalk, sulphate of lime, pipeclay, gypsum and glucose.

Lard.—Oleomargarine, cotton-seed oil, potato flour, water, mutton suet, alum (for color), carbonate of soda (for taste), caustic soda (for taste or smell).

Cream tartar.—Gypsum, starch, acid-phosphate of calcium, tartaric acid.

Saleratus.—Most of what is now sold as saleratus is bi-carbonate of soda.

Bi-carbonate of soda, or baking soda.—Gypsum, sulphate of soda, carbonate of lime.

Sugar confectionery.—Glucose, terra alba, chalk, arrowroot, sand, wheat, and potato flour, hydrated sulphate of lime, with—for coloring—cochineal, lake, indigo, and Prussian blue, carbonate of copper, carbonate of lead or white lead, vermilion, gamboge, chromates of lead, sap green, arsenite of copper, Indian red, umber, sienna, Vandyke brown, cobalt, smalt, litmus, Naples yellow, bi sulphuret of mercury, sulphuret of arsenic, bronze powders or alloys of copper and zinc.

Mustard.—Flour, turmeric, cayenne pepper, ginger, plaster of paris, linseed meal, radish seeds, chromate of lead, gypsum, sand.

Oatmeal.—Barley meal, rice and corn flour, ground husks of the cereals.

Wheat bread.—Barley, oat and pea flours, bone dust, carbonates of lime, magnesia and soda, sulphate of copper and lead chromate (for color), alum (for taste).

Cheese.—Oleomargarine, lard, cotton-seed oil, borax, saltpetre, potatoes, beans, soapstone, soda, potash, urine, sulphate of zinc, blue vitriol, arsenic (in foreign cheese).

Butter.—Oleomargarine, cheaper fats, cotton-seed oil, alum, borax, barium, chalk, flour, gypsum, lead carbonate, yellow lead chromate, potato flour, salt, soapstone, starch and sodium silicate or soluble glass.

Arrowroot.—Sago, potato and tapioca starches, and ground rice.

Cinnamon.—Cassia and most of the other spices, flour, meal, and arrowroot.

Pepper.—Ground rice and beans, mustard husk, salt, oil-cake and clay, and for colors red lead, vermilion or bi-sulphuret of mercury, Venetian red, turmeric and charcoal.

Ginger.—Wheat, sago and potato flour, ground rice, mustard-husks, turmeric.

Maple sugar.—Cane sugar, glucose, and flour.

Chicory.—Roasted wheat and rye flour, burnt beans and acorns, carrots, mangel-wurzel, roasted biscuit, sawdust, and oak-bark tan.

Sago.—Potato flour.

Vinegar.—Water, with burned sugar for color, sulphuric acid, acetic, hydrochloric, nitric and tartaric acids, cayenne pepper, salt, and mustard seed.

Pickles.—For coloring, acetate of copper.

Sauces.—Chalk and plaster of Paris, and for coloring red earths.

Marmalade.—Pulp of apple or turnip.

Olive oil.—Cotton-seed oil and the cheaper oils of the poppy, peanut, grape seed and beachnut, and coaloil, with lead to correct rancidity and copper for a greenish color.

Brandy.—Water, corn spirits, molasses, burnt sugar (for color). Artificial brandy made from other spirits and flavoring extracts is common.

Gin.—Water, cayenne, flavoring extracts, slum, and salt of tartar (for fining), sulphuric acid, coriander seed, oil of almonds, calamus root, orris root, orange peel, acetate of lead, oil of turpentine, and gray and white salts for taste or smell,

Rum.—Water, cayenne, burnt sugar, and cocculus indicus for taste or smell.

Whiskey.—Principally water, cayenne pepper, bitter almonds, tonka bean, burnt dried peaches, beet root, and a variety of flavoring extracts, sulphuric acid, creasote, and sweet spirits of nitre.

Wines.—Mixtures of inferior wines, cider, and the juices of rhubarb, gooseberries, and pears, with—for coloring—logwood, elderberry juice, Brazilwood, bilberries, burnt sugar, black cherries, and cochineal, and for taste and smell, sulphate of potash, bitartrate of potash, lead, oak sawdust, catechu, cherry-laurel water, carbonate of soda, and artificial flavorings.

Ale, beer and porter.—Water, with, for taste and smell, cocculus indicus, opium, cayenne, ginger, quassia, colocynth, caraway and coriander seeds, orange powder, honey, licorice, sulphate of iron, sulphuric acid, cream of tartar, camomile, alum, carbonate of potash, nitric acid, horehound, blessed thistle, sweet flag, gentian, aloes, molasses, juniper berries, burnt flour, isinglass, albumen, ivory, black gypsum, salt, glycerine, salicylic acid, decoction of calves' feet, glue, copperas, henbane, belladonna leaves, nux vomica, hartshorn, strychnine, tobacco, shavings and oyster shells.

Milk.—Water principally, flour or starch, boiled white carrots, milk of almonds, sheeps' brains, gum tragacanth, carbonate of soda, chrome yellow for coloring.

As medical men we are concerned with the detection and punishment of dishonesty only when its results are injurious to health. It requires no great amount of argument, however, to show that food adulteration is prejudicial to health. From causes which we need not stop to mention the American public has come to be too lenient with the dishonesty which shields itself under the name of "business." Such laws as we have for the protection of health and life are, as a rule, improperly enforced. As self-constituted conservators of public health should we not bring this matter before our legislative bodies—not once, but repeatedly—until this disgrace is wiped out from the country?

Can there be any wonder after reading the above list, that we are a nation of dyspeptics? While it may be said that many of the adulterants of our foods are innocuous, it must be admitted that others, taken repeatedly, even if in small quantities, are injurious—and are certainly not foods in the common acceptation of the term. For example, an enormous quantity of tea is consumed in this country, and a reference to the list will show that tea is more largely and more perniciously adulterated than any other article in such common use, except, perhaps, malt liquors. The consumption of sugar confectionery by children is very large—and the adulterants of this article are by no means harmless. And when it is remembered that milk is the principal food of a very large proportion of the population—young children—who can take no other food, the possible and almost certain injury may well cause us to endeavor, by every possible means, to throttle an evil which is worse than the plague.

NINTH INTERNATIONAL MEDICAL CONGRESS.

The Executive Committee of the Ninth International Medical Congress held a full and harmonious meeting in the Palmer House, Chicago, on the 6th and 7th inst. Full reports were made by sub-com-

mittees and the chief officers of the Sections, which showed a most satisfactory degree of progress in all the necessary arrangements for a large and successful Congress. The several Sections are well organized, and for the most part with arrangements for an abundance of scientific and practical work of importance, furnished in fair proportion by parties of reputation in other countries. The local arrangements at Washington are also rapidly maturing, and include not only the best possible accommodations for the regular work, but a series of appropriate entertainments and probably an excursion for the foreign guests to Niagara Falls and return to New York, after the close of the Congress. An outline of the whole programme will soon be given to the public.

PERTUSSIS IN A CAT.—MR. O. BOWEN, of Liverpool, reports this rare case of infection of one of the lower animals from a human being. The cat was infected by a little boy, and for about two weeks had five or six distinct fits of coughing daily, similar in every respect to those exhibited by the boy, with expectoration of frothy mucus afterwards. Between the attacks the cat was bright and active, though not so much so as before, and lost flesh during its illness.

SOCIETY PROCEEDINGS.

AMERICAN CLIMATOLOGICAL ASSOCIATION.

Fourth Annual Meeting, held in the Johns Hopkins University, Baltimore, Md., May 31 and June 1, 1887.

TUESDAY, MAY 31—FIRST DAY.

AFTERNOON SESSION.

The Society was called to order by THE PRESIDENT, FRANK DONALDSON, SR., M.D., of Baltimore, who delivered the *President's Address.*

PROPHYLACTIC TREATMENT OF THOSE WHO INHERIT A PREDISPOSITION TO PHTHISIS.

Thirty per cent. of the cases of phthisis have an inherited predisposition to the disease. The hereditary form, when developed, offers the least prospect of recovery. Reference was made to the pathology of the disease. Five years have elapsed since the contagion of tuberculosis was alleged to have been discovered, and nearly all observers have now confirmed the views of Koch. There is abundant evidence that human subjects readily yield to the bacillus poison when previously they have been in good health. The bacillus is always present in phthisis, and we must accept it as the full explanation of the manifestations of tuberculosis. The disease may be propagated by the inhalation of the dried bacillus from the expectoration of diseased persons, by persons predisposed to tuberculosis. The various theories which had been advanced to explain heredity were discussed. The prophylactic treatment embraces two elements: 1, the improvement of the general health of the subject; and 2, the protection from contagion. The tuberculous mother should not nurse her child, but if possible it should be given to a healthy wet-nurse. The hygiene of the nursery should be looked after carefully. The room should be well ventilated and kept at a comparatively low temperature. The subject should live much out of doors, especially between the ages of 15 and 20 years. The beneficial influence of sunlight should be borne in mind. All causes of glandular irritation should be avoided. Scrofulous glands should be dispersed or removed. The physical form of the chest should be enlarged by gymnastic movements. If possible, life should be passed in a high altitude. Oleaginous fluids are useful if they can be digested. The milk and flesh of tuberculous animals must be avoided, for cooking rarely destroys the bacilli of beef. If the prophylactic treatment is thoroughly carried out, the hereditary proclivity may remain latent and the individual never contract the disease.

DR. B. F. WESTBROOK, of Brooklyn, said that the anatomical and physiological conditions which predispose to this trouble are, according to the results of certain observations, a disproportion between the size of the heart and the lungs, the heart being smaller in proportion to the size of the lung than in the ordinary individual, and a disproportionately small digestive apparatus. The former condition interferes with the circulation at the apices of the lung, while the latter condition causes a lack of nutrition.

DR. JAMES R. LEAMING, of New York, read a paper on

THE PHILOSOPHY OF CLIMATIC TREATMENT OF DISEASES OF THE CHEST.

The author stated that it had been observed that the greatest improvement takes place during the first three weeks of the patient's stay at a new place. The suggestion was made that a line of resorts be established along the Atlantic seacoast. The patient could begin in the summer at the most northern and gradually pass southward, making a stay of a few weeks at each place. Having completed the series, the patient may return, taking the stopping-places in a reverse order. This same plan might be applied to the Pacific coast and to the mountains. The speaker also suggested the propriety of State and municipal authorities furnishing sanitariums for the benefit of those unable to avail themselves of the advantages of existing institutions.

DR. R. G. CURTIN, of Philadelphia, read a paper on

THE INFLUENCE OF SEA AIR ON SYPHILITIC PHTHISIS.

He gave in detail the histories of five cases of what appeared to be syphilitic phthisis in which improvement followed prolonged sea voyages, and in each case the symptoms returned when the patient again took up his residence on land. He was led to

consider the cases observed as cases of syphilitic phthisis, for the reasons that there were no symptoms of chronic pneumonia preceding the attack, that the lung trouble followed syphilitic infection with constitutional symptoms, that the disease was influenced to some extent by constitutional treatment, and that there was no tendency to tuberculosis in these cases. He referred to the observations of Dr. Wm. Porter, who relies upon the following points in reaching a diagnosis of syphilitic phthisis: 1, abundant expectoration without signs of softening; 2, a debilitated condition, without marked emaciation and a rational history of phthisis; 3, pronounced dyspnœa without evidence of cardiac or pulmonic obstruction to the circulation; 4, pain along the sternum and the tibial crests; and 5, the satisfactory response to treatment. Dr. Porter had examined the sputa in 100 cases without finding the bacillus. The speaker was not prepared to say why it was that the sea air proved beneficial in these cases, while in most of the ordinary cases of phthisis residence on the sea-coast was not desirable.

Diseased Conditions for which Sea Air is of Doubtful Benefit, by Dr. Boardman Read, of Atlantic City, was read by title.

Dr. E. T. Bruen, of Philadelphia, thought that it was probable that in syphilitic phthisis the benefit of the sea air is due to its influence on the catarrhal processes. In catarrhal affections of the mucous membranes in general, it has seemed to him that residence at the sea-shore was useful. On the other hand, in tuberculous phthisis it has seemed that the influence of sea air was disastrous. He was led to make these remarks because he found so many patients with phthisis recommended to reside at the sea-shore or to take ocean voyages. He had found that the cases benefited by prolonged sea voyages are those in which there is no inherited tendency to tuberculosis.

Dr. V. Y. Bowditch, of Boston, would make a great distinction in speaking of the sea-coast air and the pure sea air. Cases which could not stand the harsh, cold and changeable air of the sea-coast may be benefited by a sea voyage or residence on an island some distance from the shore, where the conditions are similar to those which obtain in a sea voyage.

Dr. James C. Wilson, of Philadelphia, said with reference to residence at the sea-coast in the treatment of phthisis, that in his experience there are three classes of patients with consumption who cannot go to our Atlantic sea-coast without risk. These are, first, those in which there is active febrile disturbance; secondly, those of a highly excitable and nervous organization; and thirdly, those who suffer from repeated attacks of spitting of blood. Such patients cannot safely reside for any length of time on the Atlantic sea-coast.

Dr. Frederick C. Shattuck, of Boston, said that the author had referred to syphilitic phthisis; that is to say, a destructive process in the lung not due to tubercle, but to the syphilitic virus. It seemed to him to be a difficult matter to determine whether or not there is such an affection. Tubercular phthisis varies so much in its symptoms that the points mentioned could not be relied on. The criterion would be the presence or absence of the tubercle bacillus. The author had referred to Dr. Porter as having examined the sputa from 100 cases of supposed syphilitic phthisis without finding the bacillus. That number is so large for the short time that this test has been available, that it would make us a little doubtful of the methods employed. The fact that the bacillus is not found is no proof that it is not present. The German Committee on the Collective Investigation of Disease studied this matter last year, and came to the conclusion that so-called syphilitic phthisis had no real existence. Both syphilis and tuberculosis are common diseases, and the one offers no immunity from the other, so that we should expect to frequently find them combined in the same individual.

Dr. J. H. Musser, of Philadelphia, had never seen a case of phthisis which he considered of syphilitic origin. He had seen only one case in which the lesions bore any resemblance to what we should expect to find in syphilitic phthisis. This was the case of a young man with syphilis and cirrhosis of the liver due to syphilitic interstitial hepatitis. There were also syphilitic gummata in the brain, and the patient died of syphilitic meningitis. There were scattered through both lungs innumerable miliary granules not at all resembling miliary tubercles. He was unable to find the bacillus of phthisis; but, as has already been stated, the failure to find it is no proof of its absence. He would not call this a case of syphilitic phthisis, but rather a case of syphilis of the lungs.

Dr. E. Fletcher Ingals, of Chicago, had been much interested in the remarks of the gentleman from Boston, but thought that most of the members had seen cases in which the syphilitic nature of the disease admitted of no question. Even if the bacilli are found, it would be no proof that the case nad not originated as a syphilitic trouble and that it had subsequently become tubercular. He related a case in which the syphilitic manifestations were very prominent. There was consolidation of the lungs, particularly of the middle portion of one lung. There was a history of syphilis and distinct cutaneous lesion. The patient had been in Colorado and returned much worse. On his return to a lower altitude, he was put on the use of iodide of potassium, and ultimately apparently recovered.

Dr. J. H. Musser read a paper on

THE TREATMENT OF THE FINAL STAGE OF PHTHISIS.

The paper consisted of a detailed account of the symptoms met with in the last stages of phthisis, and referred to the various measures which he had found useful in these cases. To relieve the high temperature he had resorted to antifebrin with advantage. Quinine was found to act unsatisfactorily.

The President announced as the Nominating Committee, Drs. F. C. Shattuck, E. T. Bruen, Willis E. Ford, B. F. Westbrook, and W. H. Geddings.

(To be concluded.)

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting, April 2, 1887.

THE PRESIDENT, S. POLLAK, M.D., IN THE CHAIR.

F. D. MOONEY, M.D., SECRETARY.

DR. CHARLES BARCK presented a specimen of

ABSCESS OF THE BRAIN CONSEQUENT TO OTORRHŒA.

The patient was a girl, æt. 15; she had had otorrhœa about eight years. It was sometimes worse, sometimes ceased altogether. For the last month she complained of headache on the left side. About three weeks ago the otorrhœa was stopped suddenly at a dispensary, after which she did not go for five days; on the sixth day she had nausea, photophobia, higher fever; the seventh day she became delirious and comatose. Dr. Kay was called in. Temperature was 104° or 105°. He made a diagnosis of meningitis basilaris. The next day the ear ran some and I was called in consultation. I found pus in the external auditory canal, but the walls were so thickened that it was not possible to get a view of the membrane. The mastoid region was swollen and tender. I advised opening of the mastoid process. This was done on March 17. As soon as I had scraped off the periosteum we saw yellow fetid pus escaping from the mastoid process, where there was a big cavity. The next day water thrown into the mastoid came out of the canal. The fever came down, the coma reduced and she began to answer short questions. The discharge of fetid pus was profuse. The next week the patient grew worse and died two days ago. We found that the bottom of the interior of the skull was filled with very fetid pus. The brain did not show any symptoms of inflammation; it was only adherent around the opening of the abscess, which was about the size of an ostrich's egg. In the bone itself you will see here an artificial opening from the outside into the mastoid antrum, showing the carious condition. The pus found its way from the tympanum into the brain.

DR. J. B. SHAPLEIGH said he was struck with the beneficial effect the operation seemed to have on the disease. Unfortunately he saw the patient too late to get the full benefit of that most important and useful operation. If he had seen the case sooner, he had no doubt that it would have been saved. Even when the temporal bone is already carious, if by the operation free drainage can be had, a cure often results. Its good effect was seen in the amelioration of the symptoms.

DR. L. BREMER said that it was an old story that the doctor has been called too late. He believed that the doctor might have been called in a half a year ago, and he would have been too late. He does not believe that at any time this condition was accessible to any operation. The abscess was a very old one, probably years old, because it has what is erroneosly called a pyogenous membrane. There is one important point that attaches to the lesion, which has not entered into the consideration of those that observed it. The seat of the abscess is the left temporal lobe; that is to say, that portion of the brain where the impressions of the ear are interpreted; its psychical auditory centre, so-called. A lesion there produces deafness on the opposite side. The clinical history does not say anything about this, and certainly if the child had heard with the opposite ear there is nothing in cerebral localization. There are a few cases on record where after congenital deafness, these parts were found to be in a state of atrophy, just as there are a few cases where after congenital blindness the angular gyrus was found to be atrophied. However, these questions have not been settled.

DR. BARCK had seen the girl only in the comatose state. There is no doubt that she didn't hear very well in the left ear; it was in a diseased condition for the past year. He did not know anything about the right ear. In his opinion, and that of Dr. Bremer, the abscess was an old one, existing probably six years. The opening into the abscess was about as large as a penholder, and was situated opposite a hole just as large in the periosteum. On the posterior wall, and between the two holes was a big piece of cheesy matter, and just around this place were more or less adhesions between the brain and periosteum. His opinion was that there was inflammation of the tegmen at first, and in consequence caries of the bone, and from that abscess of the brain formed, and was during the last few weeks closed around by the adhesions, and then gave rise to meningitis. It did not give rise to any brain symptoms during life other than the headache from time to time.

DR. ROBERT BARCLAY said, concerning the operation of trephining the mastoid, that the danger does not lie in the mastoid, but in the middle ear, and if proper drainage could be had there, there would be no inflammation of the mastoid. The most dangerous form is that which has its seat in the attic, where lies the head of the malleus, and the main portion of the body of the incus. Water splashed up into the mouth of the Eustachian tube frequently causes inflammation of the flaccid portion of the membrane, and the hearing is often good, even where there is intense pain and inflammation. In this the hearing remained to a certain extent in the left ear, which is an important point in such a case. The drumhead was not visible; it is possible that the pus burrowed out between the auditory plate and the flaccid portion and broke through there. The main difficulty is in draining the attic, and it requires skill to do this; it is only $\frac{1}{16}$ of an inch between the middle ear, the brain, the carotid canal, the internal jugular vein, and the internal auditory canal, and the brain lies nearer than the others. It is often difficult to differentiate between acute neuralgia and neuralgia of acute meningitis. This operation of trephining, a magnificent one for aurists, is, I think, often unnecessary, if we will get drainage from the external auditory canal.

DR. D. V. DEAN had had five cases in which he had trephined the mastoid, three of which recovered. They had gone on to mental trouble; the friends of one, a girl of 12 to 14 years, thought she was becoming insane. In one of the two cases that died he

had the opportunity of making a post-mortem examination. He thought trephining was frequently performed when unnecessary, but thought it was quite as frequently neglected. The profession is in part to blame for this fact. The physicians were often, until recently, in the habit of telling the families that the child would outgrow its ear trouble, and it thus came to be the belief of many parents. It is well recognized by pathological anatomists that the *tegmen tympani* and the roof of the mastoid antrum are peculiarly susceptible to certain pathological changes. In this case the necrosis is evidently on the anterior or outer side of the petrous portion, and the roof of the attic is nearly or quite open.

A very interesting case "came too late" literally under his care, which showed beautifully that it is not always the attic or the tympanum at all that is at fault, or from which treatment must be carried out. The soft tissues about and behind the right ear were infiltrated with pus, and the muscles also of that side of the neck. He opened above the external ear into an abscess within the skull containing much pus—the opening through the squamous portion, 1.5 cc. in diameter. The patient died, and he found post-mortem that the whole base of the petrous portion had necrosed and disappeared, except a bridge 1 to 3 mm. wide and 1 mm. thick, supporting the superior petroyal sinus. The opening, therefore, tunneled under the lateral sinus. The cavity also communicated with the external meatus in the upper posterior outer part by an opening 1 cm. in diameter. Below it opened 1 cm. in diameter through the occipito-mastoid suture a little behind the stylo-mastoid, and necrosis and pus encroached upon the jugular fossa. Pus had burrowed and the bone was partly necrosed under the temporal and mastoid muscles down the sterno cleido muscle and the rectus, around the condyle and left side of foramen magnum and the occipito-atloid ligament. There were in the lateral sinus phlebitis and thrombus; a meningitis extended over quite a large area, and yet the whole middle ear was apparently entirely free from destructive disease; and to this day the hammer, anvil and stopes are in place except the long process of the anvil which has been recently broken off.

Dr. Borck believed that in this specimen it could not be clearly made out by which way the inflammation spread into the brain. It may have been through the *tegmen tympani* or along the auditory nerve.

Dr. S. Pollak had had very little opportunity to make such examinations; only once had he trephined the mastoid process, when pus escaped very freely from the opening which we made, and the person recovered very rapidly afterwards. Diseases of the mastoid cells and of the middle ear are much more common than we imagine. In the case he had a few weeks ago there was destruction of the whole mastoid process and the communication between the mastoid cells and the meatus, and yet the patient feels comfortable, although a frightful pathological process constantly goes on.

Dr. W. S. Ford thought Dr. Barclay quite correct in assuming that free drainage is very important in these cases. A patient of Dr. Spencer's had otitis media purulenta chronica. The drum membrane had come away. He had been treating the case for four or five months and regarded it as getting along very well. She had lost her hearing on that side. He was called in to attend to a little disturbance in the neighborhood of the pain. It increased in violence until it was atrocious. There was confusion of thought, anxiety and pain in the mastoid region. Suddenly she was affected with Bell's palsy, which has not passed off entirely yet. Local sedatives had no effect, and he bled her nearly a quart, with the result of immediate cessation of the pain. Dr. Gamble and he had agreed to perforate the mastoid cells, but it got well without it. From the loss of the bones and drum, free drainage was possible, and to this he attributes the failure of the inflammation to extend further.

Dr. F. R. Fry wished to question the statement made by Dr. Bremer, that it could be proven in this case that there were no disturbances of hearing in the opposite ear it would be a severe blow to cerebral localization. Ferrier, in his experiments on animals, proved that when there was disturbance in the temporal lobe on one side, there would be disturbance of hearing on the opposite only temporarily, and there were permanent disturbances only after this region on both sides of the brain had been injured, seeming to indicate the fact that the functions of this region might be vicariously taken up by the opposite side of the brain. At any rate, as Dr. Bremer has said, experimentation, as well as pathological evidence in regard to this region of the brain is unsatisfactory, and the evidence regarding cerebral localization from disturbances in this region is not near as convincing as that from experimentation of the brain.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Ninth Annual Meeting, held in the Hall of the Academy of Medicine, New York, May 26, 27 and 28, 1887.

(*Concluded from page 659.*)

FRIDAY, MAY 27—SECOND DAY.

MORNING SESSION.

FRANK DONALDSON, JR., of Baltimore read

FURTHER RESEARCHES ON THE FUNCTION OF THE RECURRENT LARYNGEAL NERVE: A SERIES OF EXPERIMENTS FROM THE BIOLOGICAL LABORATORY OF THE JOHNS HOPKINS UNIVERSITY.

At a previous meeting he had read a paper criticizing certain conclusions advanced by Dr. F. H. Hooper, of Boston. The conclusions which Dr. Donaldson reached were: That the constrictors do not cease to act under deep narcosis or suspension of consciousness from any cause; that we do not always obtain abduction or irritation when consciousness is suspended; that the abduction was

not reflex and was not dependent on unconsciousness; that it is with weak stimuli that abduction takes place, and the movement passes into adduction as the stimulus was increased; these results invariably followed whether the animal was slightly or deeply narcotized, or when the medulla was destroyed or when local death had taken place. That after stronger continued stimuli the abductor muscles become worn out and did not respond to stimuli.

These conclusions had been strongly criticized and the present series of experiments were performed to test the correctness of the above views. He had shown, that abduction of the vocal bands can be obtained without ether and that it is a physiological fact that opening or closing the larynx depends upon the strength of the stimulus. With weak stimuli abduction was produced, while with strong stimuli adduction was caused.

DR. FRANKLIN H. HOOPER, of Boston, read a paper on

THE ANATOMY AND PHYSIOLOGY OF THE RECURRENT LARYNGEAL NERVE: FROM THE PHYSIOLOGICAL LABORATORY OF THE HARVARD MEDICAL SCHOOL.

The anatomy of this nerve is now complete and exact, but up to a very recent date much confusion existed on this subject. The larynx possesses three functions controlled by three distinct sets of muscles all innerrated by the recurrent nerves. These functions are: 1. Respiration; 2. Sphincter action, which closes the larynx and prevents the entrance of foreign bodies, and plays an important part in expulsive acts; 3. Phonatory action. Stimuli applied to recurrent nerves produces adduction in certain animals (dogs) and abduction in other animals (cats). Only a few experiments have been made in man but as far as they go they seem to show that stimulation closes the glottis. Under ether or profound morphia narcosis, stimulation of the recurrent nerves produces opening of the glottis in dogs. Three hundred and twelve experiments were reported, some of the animals were under the influence of chloral, chloroform, morphia or ether. Under ether, dilatation was produced with weak currents, while contraction could not be produced with even the strongest current. As the dog begins to come out of the ether dilatation can not be induced with any current, while contraction is brought about by currents decreasing in intensity as the effect of ether passed off. A similar effect was observed in one case after use of a large dose of morphia. After small doses of ether stimulation produces two effects: first, vibration, second, closure. Under large doses of ether, four effects were observed, according to the intensity of the irritation: vibration, complete dilatation, mixed movement and closure. After small doses of morphia, chloral and chloroform, stimulation produces the same effects as after small doses of ether.

DR. F. I. KNIGHT, of Boston, saw some of the experiments of Dr. Hooper. In one case he saw a failure to get the ether effect, which was attributed to the size of the dog.

DR. S. W. LANGMAID, of Boston, stated that in one of Dr. Hooper's experiments recently made, the skull was trephined and insensibility produced by pressing a plug against the cortex. In this case dilatation was very marked under stimulation of the recurrent nerve. That is the only case in which he had seen dilatation similar to that which he thought Dr. Donaldson describes.

DR. HOOPER said that he had been trying to get the effect with feeble stimuli which Dr. Donaldson describes but had been unable to do so. The only point on which they disagreed was with reference to the effect of weak stimuli in unnarcotised animals. He had done a number of experiments following the method of Dr. Donaldson, but had not gotten his results.

AFTERNOON SESSION.

DR. WILLIAM C. GLASGOW, of St. Louis, read a paper on

CERTAIN MEASURES FOR THE RELIEF OF CONGESTIVE HEADACHES.

The most severe symptoms in this condition are the pain and sense of constriction of the forehead. If the pain is analyzed it will be found that it is of two kinds. In the one there is a fullness of the vessels, and in the other, disordered nerve action. Both varieties are often due to the same pathological condition of the nasal chambers. During congestive headache if we examine the nose we find the cavernous bodies are full and tense. The degree of tenseness corresponds to a certain extent to the degree of headache. The method of treatment which he had adopted during the past four years had been the local abstraction of blood. A knife is not required, a simple prick is sufficient. In many cases the relief is immediate. The operation may have to be repeated in a month or two. He had seen few cases in which permanent relief had not followed a repetition of the operation from two to six times. The amount of blood drawn rarely exceeds an ounce. A number of illustrative cases were cited.

DR. J. N. MACKENZIE, of Baltimore, said that some years ago he had advised that in acute coryza an incision be made in the turbinated tissues with a sharp pointed bistoury.

DR. C. C. RICE, of New York, said that his experience was somewhat different from that of the author. So far as chronic hypertrophic catarrh is concerned, he had come to look in these cases of headache for hypertrophy over the middle turbinated bone, pressing against the septum. There has not been much congestion but simply contact. In these cases he had used the galvanic cautery, and had not tried to draw blood.

DR. HARRISON ALLEN, of Philadelphia, was more in accord with the last speaker than with the author. The trouble may come from turbinated bones, but he had attributed it to pressure effects. The proper treatment is to separate the parts. He did not hesitate to etherize the patient, and introduce the finger, and push the septum into place. In one case, a lady came to Philadelphia with a complication of disorders.

She had reflex headaches which were so severe as to lead to a fear of mental aberration. On examining the nose the condition referred to above was found and the speaker insisted that the headache was due to the trouble in the nose. He etherized the patient and separated the parts with the finger. The headaches entirely disappeared.

Dr. F. H. Bosworth, of New York, said that it is a fact that in many cases where we find contact between the middle turbinated bone and the septum there are no symptoms that can be referred to this condition. Judging from analogy, we have in no other portion of the body neuralgia caused by the contact of mucous surfaces. In the vagina and in the urethra, we have mucous surfaces in contact. We may, however, safely say that it is a proper course to pursue to put the nasal cavity into a condition as near normal as possible.

Dr. Glasgow, in closing the discussion, remarked that the paper said nothing at all about hypertrophy. No one recommends bleeding for hypertrophies, for these do not bleed. The fullness of the cavernous sinuses is simply the sign of the fullness of the frontal sinuses. It is not the cause of the trouble. He takes blood from this part simply because this is the most convenient place to do it.

A Case of Leucoplakia; Recovery: by Dr. W. C. Glasgow, of St. Louis, was read by title.

Dr. J. Solis-Cohen, of Philadelphia, opened the discussion on

THE TREATMENT OF LARYNGITIS IN PROFESSIONALS WHO ARE UNABLE TO REST.

Sometimes a professional had consulted him with hoarseness, the result of laryngitis, and want to use his voice in a few hours. The best method to accomplish this that he had found, has been the administration of a sharp emetic and then let the patient rest until the time of the performance, sucking pieces of ice and keeping a cold compress to the neck. In chronic laryngitis he had found nothing of the same service as the use of a weak solution of sulphate of zinc, two grains to the ounce, used in a spray apparatus. In the intervals of the play the patient may inhale a little compound tincture of benzoin if he finds that he is hoarse. Another remedy of considerable service is the use of a respiratory with turpentine, terebene, or eucalyptol, or something of that kind. I am, however, not aware of any special method which is adapted to this class of individuals.

Dr. T. A. DeBlois, of Boston, had endeavored to keep up the systematic use of sulphate of zinc, but had found that the hoarseness continues unless the voice is rested. He had occasionally had to treat vocalists who could spare a few hours, and have found excellent results from the use of nitrate of silver, and the most disastrous results from the use of cocaine. There seems to be a certain amount of relaxation following the use of muriate of cocaine. It may be said that in these cases that unless there is rest there is no cure.

Dr. Beverly Robinson, of New York, stated that his experience with the class of cases under discussion would lead him to believe that so far as the acute cases are concerned there are milder measures than the use of an emetic. He had found under these circumstances that the use of tablet triturates of chloride of ammonium repeated as often as once every fifteen minutes is one of the most efficient methods of overcoming the difficulty. For local application he did not think there is anything better than carbolized spray. In the chronic form of laryngitis in vocalists he believed that we could not obtain much information from the appearance of the mucous membrane. In these cases the membranes may be red and this may continue after the trouble with the voice has disappeared. He believed that there the trouble is chiefly in the nervo-muscular apparatus and had found the internal use of good wine of coca, with application of a faradic current to the neck, very useful. The faradism should be repeated once or twice a day.

Dr. F. H. Bosworth held that there is no such disease as larnygitis as that term is used to mean an inflammatory process. The seat of the disease is not in the larnyx but in the nasal passages. If you apply cocaine to the nasal mucous membrane, causing contraction of the blood vessels, and follow this by the use of chromic acid, thus eliminating the cold in the head, it will usually be found that the laryngitis has disappeared. Relaxation has been spoken of as following the application of cocaine. Although he had used the drug in many cases he had seen this result in only two, and they were cases of hay fever. His method of using cocaine is to suspend it in fluid cosmoline and direct the patient to spray the nose and inhale it.

Dr. C. E. Sajous, of Philadelphia, had treated many cases of this trouble. The action of cocaine in laryngitis is pernicious. In cold in the head cocaine is useful but it should not be used within four hours of the time when it is desired to use the voice. In the majority of cases of chronic laryngitis the condition is due largely to fatigue. He had found that the use of quinine and nux vomica internally with the external use of a weak faradaic current are the best measures to employ.

Dr. Morris J. Asch, of New York, considered the employment of muriate of ammonia is useful. He gives it in solution in compound liquorice mixture which contains a little tartar emetic. The chronic cases are more difficult to treat because the patients can not quit work. He had found nothing equal the application of astringents. He had used the spray in some cases, but more good is done by the use of the brush. The solution which he most frequently used was one of perchloride of iron, thirty to sixty grains to the ounce. Where a person has to use the voice in a few hours, a single application will put them in good condition temporarily.

Dr. F. H. Hooper, remarked that in these professionals there is sometimes an alteration in the quality of the voice the result of over-exertion. Here there seems to be want of tension in one vocal cord. To relieve this he had used electricity outside, with the internal use of aromatic spirits of ammonia, thirty to forty drops in half a glass of soda water.

Dr. J. N. Mackenzie thought that Dr. Bosworth

is to a great extent right with reference to the dependence of laryngeal disease on nasal trouble, and that the vast majority of cases of laryngitis are associated with disease of the nasal passages and upon the recognition of this fact depends the successful treatment of many cases of chronic laryngitis. I should never use cocaine just before a person was going to use the throat. The sensation which it produces in the larynx is only next to that of hanging. In the nose the effect is very pleasant provided some of the solution does not trickle into the nose or larynx.

DR. C. C. RICE, of New York, read a paper entitled *Glandular and Connective Tissue Hypertropies in the Lateral Walls of the Pharynx.*

DR. CHARLES H. KNIGHT, of New York, read a paper on

THE GALVANO-CAUTERY IN THE TREATMENT OF HYPERTROPHIED TONSILS.

The speaker first referred to the objections to the cutting operation. The principal of these is the danger from hæmorrhage. At times the tonsil is so deeply situated that it is not possible to get the tonsilotome over it. In other cases the patients positively object to the cutting operation. There are two methods of using the galvano-cautery, one is by puncture and the other by the snare. The former is much the slower. Not more than three punctures should be made at each sitting. The number of sittings required vary from five to ten. The latter method with the snare is much the quicker. The current should be used intermittingly and traction should only be made during the passage of the current. He did not recommend this as an universal operation. In the majority of cases the cutting operation is easier and better. It should be used where there was danger of hæmorrhage, and he was almost disposed to say that the galvano-cautery should be used in all cases of adults.

DR. A. W. MACCOY, of Philadelphia, said that in the treatment of these cases he made a distinction in the methods employed. In the glandular enlargements he had used puncture, while in the interstitial hypertrophies he had not used it, for in these cases you are apt to get cicatrices which give considerable trouble. He was not satisfied that the puncture is any better than chromic acid fused on a probe and passed into a crypt.

DR. BEVERLY ROBINSON had long held that we know of no simple operation in surgery. There is nothing so unpleasant as to have to remove large tonsils from a small child. Although, as a rule, the hæmorrhage is readily controlled, yet he always undertakes the operation with a good deal of reluctance. He was disposed to think that galvano-cautery is one of the best methods. We can thus remove many tonsils that give us a good deal of apprehension.

DR. RICE said that very little can be accomplished with the cautery in the large white hypertrophies in children. The cutting operation is what must be done in these cases. In adults, however, galvano-cautery is the most useful measure.

THE PRESIDENT said that he had used the cautery, but a certain amount of soreness has always followed its use. In children, in order to avoid the pain and nervous shock attending the cutting operation, he was in the habit of etherizing the patient and removing the tonsil with the snare.

DR. HARRISON ALLEN remarked that while it may be proper to do the cutting operation in certain cases of hypertropied tonsils which have been selected with great care, yet he thought that we err in making broad statements in regard to this operation. He believed that the number of cases in which serious hæmorrhage occurs is much larger than is supposed. All the disastrous cases are not reported. He was not willing to perform the operation until he had studied the case very carefully. Other measures should be first used and the knife resorted to at the last.

DR. D. BRYSON DELAVAN, of New York, held that where the operation of tonsillotomy is done with proper care and with suitable styptics at hand, there is not much danger from hæmorrhage. At first there is a gush of blood, but in a few seconds this stops. He had found it very difficult to get authentic reports of cases in which serious hæmorrhage followed this operation.

DR. MORRIS J. ASCH, with reference to the question of hæmorrhage, stated that some time ago one of his assistants removed a small section of the tonsil. The next day there was serious bleeding, and it was found necessary to keep up pressure on the tonsil for six hours before it was controlled.

DR. J. SOLIS-COHEN thought that a great deal of the trouble in tonsillotomy is due to the adhesion of the anterior fold of the palate to the tonsil. It has been his custom to first free the tonsil from the palate. In many cases the tonsil will then go down without any treatment whatever. He thought that the hæmorrhage comes from the cutting of this fold, for, as the vessels run in a vertical direction, they are cut obliquely. He had never been able to use the cautery with the success of the reader of the paper. In his cases it has required from twenty to fifty sittings.

DR. BEVERLY ROBINSON, of New York, read a note on

A FREQUENT CAUSE OF NASAL HÆMORRHAGE.

In the experience of the author the ulcerations in atrophic rhinitis had been a most frequent cause of hæmorrhage. He had found himself unable to detach the crusts from these ulcerations either by the use of douches or sprays so well as by the employment of ointments. In the course of two or three days the patient is able to blow out the crusts. The best ointment for this purpose is the ammoniated mercurial of the Pharmacopœia, made with vaseline, one half full strength. After plugging the nostrils, especially in children, he has found flexible probes most useful. He has never found anything to arrest the hæmorrhages so well as sheet sponge, which is cut into long strips and pushed into the nares till the bleeding stops.

SATURDAY, MAY 28—THIRD DAY.

MORNING SESSION.

THE PRESIDENT called the Association to order,

and DR. S. W. LANGMAID, of Boston, read a paper on

CONSTITUTIONAL CAUSES OF THROAT AFFECTIONS.

However important and interesting the morbid changes in the upper air-passages may be locally, the important lesson should be learned that there are underlying constitutional causes which must be removed in order to effect a cure. Syphilis, alcoholism, rheumatism, and gout, etc., are ever at work, and their influence must be combated. Local treatment is in the nature of repair, while constitutional and hygienic treatment must be in the direction of the renewal of normal processes.

DR. GLASGOW, of St. Louis, regarded the paper as one of the most timely which had been presented to the Association. He thought the statement made by Dr. Daly, of Pittsburg, that the laryngeal physician should become a laryngeal surgeon, as one tending to do much harm, and it had done much to retard progress in this department of medicine.

Affections of the Crico-arytenoid Articulation, by Dr. George W. Major, of Montreal; *Cancer of the Larynx*, by Dr. Hosmer A. Johnson, of Chicago; and *A Case of Recurring Laryngitis Hæmorrhagica*, by Dr. C. E. Bean, of St. Paul, were read by title.

DR. MORRIS J. ASCH reported a case of

STENOSIS OF THE LARYNX

treated by divulsion and systematic dilatation. The opening of the larynx was diminished to one-third its normal size. The dilatation was accomplished by Schroeder's hard-rubber tubes. It was a case of hypertrophic laryngitis below the local cords, and the relief afforded by treatment had been permanent. He preferred this to any other method in this class of cases.

DR. COHEN had not had the courage to attempt to dilate without preliminary tracheotomy. He believed it was better to perform tracheotomy first, and then pursue the most active measures possible for the relief of the stenosis.

DR. KNIGHT said that Schroeder's method had been very slowly popularized in this country. He regarded it as a sub-glottic laryngitis of some kind, as had been expressed by Mackenzie, of London, and would discard the name *corditis*, etc.

DR. MORGAN, of Washington, related a case in which he used dilators without permanent benefit, and in which he kept the disease in abeyance by constitutional measures and local applications. He recommended from time to time tracheotomy, to be followed by dilatation, but the patient declined, and finally died suddenly of laryngeal spasm.

DR. DELAVAN, believed that the method of treatment by dilatation would receive important modifications by O'Dwyer's method of intubation.

DR. ASCH spoke of some theoretical objections to O'Dwyer's method for the treatment of these cases. He agreed with Dr. Knight that the term *corditis*, etc., should be abandoned. He regarded it as one of the advantages of this method that tracheotomy was avoided.

DR. D. BRYSON DELAVAN, of New York, then read a paper on

THE ETIOLOGY OF DEFLECTIONS OF THE NASAL SEPTUM,

in which he had gathered the scattered views on the causes, which were generally admitted to be obscure. After discussing the predisposing causes, as race and diathesis, he spoke of the exciting causes under the headings, traumatism, local malnutrition, and occlusion of the nasal passages.

DR. MORGAN, had been able to trace his case to traumatism almost invariably, when the history had been carefully studied. He had seen but few cases in the African, but whether or not this was real exemption he was unable to say.

DR. DONALDSON was also of the opinion that perhaps it was less frequent in the African than among the whites.

DR. SOLIS-COHEN had noticed that high-arched palate and deflected septum go together in a majority of cases, perhaps; but he had also seen many cases in which there was deflected septum without high-arched palate, and also high-arched palate without deflected septum. A great many children under *seven* years of age have deflected septum. He thought that the question of traumatism was a difficult one to settle. So also it was difficult to get at the exact influence of racial peculiarities. Over and over he had seen marked deflection of the septum *without* difficulty of breathing.

DR. SAJOUS thought that traumatism as a cause could not be clearly defined.

DR. MACKENZIE had not seen a case of deflected septum in the African that required an operation. He regarded *traumatism* as the most prolific cause. He had also been surprised at the brilliant results said to attend some operations.

DR. DEBLOIS said that he had observed the nose of several pugilists and had been surprised to find that the septum was in the correct line, while the nose in general had been flattened and bruised with great severity and repeatedly. He thought that these cases could with propriety be regarded as traumatic.

DR. ROE spoke of several peculiar varieties of deflected septum, and particularly objected to the use of the punch in the treatment.

DR. INGALS had seen deflected septum in children two years of age, and he had also come to the conclusion that, unless the nasal bones were fractured or cartilages dislocated, deflection of the septum was not likely to follow traumatism.

DR. LANGMAID, of Boston, reported a case of

A PIN REMOVED FROM THE LARYNX,

where it had been for two years. It was sticking through the ventricular band and pointing backward.

DR. RUFUS P. LINCOLN, of New York, reported a case of

RECURRENT NASO-PHARYNGEAL TUMOR,

which he had cured by electrolysis. He used a single needle, and made sixteen applications in from four to six days. The growth had not shown any tendency to return.

DR. W. C. JARVIS, of New York, reported

TWO CASES OF CONGENITAL OCCLUSION OF THE ANTERIOR NARES.

This is a rare condition. He had been unable to find a case recorded in medical literature, and the two reported were the only cases which he had met with in several thousand patients examined at his clinics. They were treated by means of his nasal drills and electro-motor. In one case the obstruction was fibrous, and in the other osseous, and the results of treatment were very satisfactory.

AFTERNOON SESSION.

DR. ALEXANDER W. MACCOY, of Philadelphia, read a paper on

A COMPARATIVE STUDY OF SOME OF THE METHODS OF TREATMENT BEST ADAPTED TO THE RELIEF OF OCCLUSION OF THE POSTERIOR NARES

due to hypertrophy of soft parts, and not bony occlusion of the posterior nares, which he had never seen. He referred to different methods, and the difficulties which had been offered in way of reaching the posterior nares, and lack of precision in making applications. Since the advent of cocaine these difficulties, to a certain extent, had been overcome, but the effect produced by the drug rendered comparatively useless certain instruments which heretofore had been used satisfactorily; for instance, Jarvis' snare, the use of which he had ceased, except for the removal of nasal polypi, etc. From the fact that cocaine caused such retraction of the tissues, he had not been able to make use of the needle recommended by Jarvis; but, at the same time, the drug had brought into greater use the galvano cautery and chromic acid. The chief point in the paper was to present the superior advantage offered by a concealed flexible instrument for applying fused chromic acid. He preferred this to all other methods for removing these posterior hypertrophies.

DR. JARVIS regarded his transfixion needle as one of the most serviceable instruments he used for the removal of hypertrophied nasal tissue. He never used cocaine as a preliminary step, but first included the hypertrophy within the loop, drew the wire home, and then applied the cocaine. He regarded chromic acid as dangerous and likely to be followed by unpleasant results. He never attempted to remove a hypertrophy by means of the galvano-cautery.

DR. RICE said that it was often difficult to remove these hypertrophies. He had given up the use of the transfixion needles. There were cases in which it was difficult to apply the loop posteriorly. He had never met with the disadvantages in the use of chromic acid spoken of by Dr. Jarvis.

DR. DONALDSON favored the use of chromic acid, as did his father, who had used it without bad results for many years. As to the needles, technical skill was required for their use, and in one case he had profuse hæmorrhage following their use.

DR. DELAVAN had used chromic acid, discarded it, used it again, and had again discarded it. As for hæmorrhage, he had not seen a case where it could not be controlled readily, and he believed that, practically, there was no danger from it.

DR. JARVIS said that an attempt to remove a posterior hypertrophy, while a deflected septum existed, was very poor surgery. First repair the deflected septum, and the hypertrophy will disappear of itself. He regarded it as trifling with the patient's nostrils to use chromic acid when the hypertrophied tissue can be removed so easily with the transfixion needles.

DR. MACCOY said that he had never been able to reach the posterior face of the middle turbinated bone before his little instrument was invented. A single application of chromic acid was, as a rule, all that was required. In comparison with it, he regarded the use of the needle as a very difficult operation. He never uses chromic acid without immediately antagonizing it.

DR. JARVIS remarked that the fault was not in the needle but in the operator, who failed to make the few simple manipulations necessary to its successful use.

Plaster-of-Paris Dressing for Fracture of the Nose, by Dr. J. W. Robertson, of Detroit, was read by title.

DR. DEBLOIS, of Boston, exhibited a plaster of-Paris splint which he had used with good result in one case of fractured nose.

DR. ROE, of Rochester, exhibited a nasal saw which was operated by means of an electro-motor.

The committee on *The Congress of American Physicians and Surgeons* presented its report, which was received and adopted.

The following were elected

OFFICERS FOR THE ENSUING YEAR.

President—Dr. R. P. Lincoln, of New York.

Vice-Presidents—Drs. J. N. Mackenzie, of Baltimore, and S. W. Langmaid, of Boston.

Secretary and Treasurer—Dr. D. Bryson Delavan, of New York.

Librarian—Dr. T. R. French, of Brooklyn.

Council—Drs. Frank Donaldson, of Baltimore, J. Solis-Cohen, of Philadelphia, F. H. Hooper, of Boston, and E. C. Morgan, of Washington.

The following were elected Corresponding Fellows: Dr. A. Gougenheim, of Paris, and J. Moure, of Bordeaux.

Dr. A. Jacobi, of New York, was elected Honorary Fellow.

The Association then adjourned.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, April 7, 1887.

THE PRESIDENT, THOMAS M. DRYSDALE, M.D., IN THE CHAIR.

(*Continued from page 668.*)

DR. J. M. BALDY presented a specimen of

PYOSALPINX IN ITS RELATION TO PUERPERAL FEVER

not simply because it was one of pyosalpinx, but because of its extremely important relation to the puerperal state and, as far as he is aware, because it is the first of its kind ever operated upon, and life saved when the patient was dying from, so called, puerperal fever. The patient, Mamie P., twenty-three

years of age, was delivered of a male child after a tedious but normal labor some four years ago. She was at that time confined to her bed for eight weeks "with an inflammation in her stomach." She however made a good recovery and has not suffered from pain or ache in her abdomen since. On February 3, he was called to attend her in her second labor. Although he went with the messenger he found the labor over; a dead child, together with the placenta and all the membranes intact, lay between her thighs. Her uncovered arms, chest and legs were exposed in a room without a fire. No examination was made but she was put between warm, dry bed clothes as quickly as possible. On the second or third day she had a chill with a quick rise of pulse and temperature, a tympanitic and tender abdomen. These symptoms abated somewhat and he lost sight of her for several weeks. On the third of March, one month after her confinement, he was again summoned to her and found that she had been suffering ever since he had last seen her. She had become so emaciated that he hardly recognized her. Her temperature was 102°F. and pulse 130. She had continued chills and creeps, hectic, night-sweats, and sleepless nights; her abdomen was swollen and tympanitic and intensely painful, her bowels loose and fœtid; micturition and defecation were both painful. She was evidently fast approaching death. An examination of the soft parts showed no sign of a recent tear. The uterus was sub-involuted and on the left side there was a large boggy mass firmly adherent, tortuous and extremely tender. The right side was tender but no mass could be detected. Abdominal section was advised as the only remaining hope of saving her life, and the proposition was eagerly accepted by the patient and her friends. Dr. J. Price saw the patient and confirmed my opinion of immediate operation. He operated on March 5, the delay being necessary to have her surroundings cleansed. Drs. J. Price, McMurtrie, of Danville, Ky., and Mr. Eckman, of Scranton, Pa., were assisting. The right tube and ovary were healthy and were not removed; the left tube was almost as large as the uterus and firmly adherent in all directions, especially to the bowels from which it was separated with great difficulty. An abscess of the cellular tissue was ruptured while breaking up the adhesions and pus welled up through the abdominal incision. Both tube and ovary were removed. A large cheesy mass on the bowels at the point of adhesion was trimmed down with scissors and Monsel's solution applied to the bleeding points. After a free irrigation, a drainage tube was put in and the incision, which was only one and a half inches in length, was closed. The tube was found to be distended with pus, the ovary was disintegrated and contained pus. The patient rallied quickly and had no shock. Her pulse fell to 80 and her temperature to normal within twelve hours, and remained so. The tube was removed on the seventh day. There had been little or no pain, no catheter, no laxative or drug of any kind had been employed. The day after the removal of the tube her pulse began to rise as also did her temperature. Pain developed in the left ovarian region and she began to have hectic and cold creeps. About the eleventh day there was a free gush of pus from the tube tract and she began to improve again from that moment. A rubber tube was inserted and passed deep into the pelvis and the abscess was washed out twice daily. The discharge gradually diminished and the tube was again removed. The wound is now completely healed and the patient is a well woman.

The belief that a certain proportion of our puerperal fever cases are simply cases of salpingitis septica is by no means a new one, and is probably held by most of the great operators in the world. Dr. M. Sänger says that "salpingitis septica co-existing with severe puerperal septicæmia has never as yet given the surgeon an opportunity to remove the principal focus of disease by the extirpation of the tubes. It is possible, however, that under certain circumstances such a proceedure might be indicated." Dr. Carl Schroeder holds that "septic endometritis does not extend to the tubes as a rule; occasionally, however, it does go on to a purulent salpingitis." That these cases do exist much more frequently than we have had any idea of is certain, and that oftentimes a life otherwise doomed can be saved by operative interference, is proved by the case presented to-night. Mr. Tait mentions four deaths from this cause in Queen Charlotte Hospital alone, and says "that these cases were, during life, all regarded as puerperal fever." Dr. A. Mastin, out of a total of two hundred and eighty-seven cases, found that seventy resulted from the puerperal state. Dr. Sänger mentions two cases which have come to his knowledge in which the over distended tubes burst and discharged pus into the abdominal cavity with death on the fourth day after confinement in one case, and on the twenty-first day, in the second case. He thinks that in both these cases the salpingitis existed before delivery, and mentions a case in his own practice in which this certainly was the condition. Hecker, as early as 1878, mentions two cases in which the pyosalpinx was old and was only lit up by the puerperal state. Whether the disease arises *de novo*, or having already existed from other causes is simply lit up by the puerperal state, must be determined in each individual case. Hecker's and Sänger's cases as mentioned, had pre-existing salpingitis, but in the seventy cases reported by Martin the micro-organism of puerperal septicæmia were found in the contents of the tubes and no mention is made of any other micro-organism, so it is fair to presume that these cases arose from the puerperal state pure and simple. Of course the possible contagion of gonorrhœa can never be eliminated except by a microscopic examination. In his case, although the trouble seemed very clearly to have arisen at the time of the second labor, possibly with her first also, yet the chance of gonorrhœal infection both before and after her first pregnancy are so great that he cannot pretend to say it was not present. The operation has up to this time been done at least four times in Philadelphia; one case was operated on just two weeks previous to mine by Dr. Longaker, in which a pyo-salpinx was found and removed, the patient dying on the second day. Dr. J. Price has since operated twice, and in

one case found more than a quart of pus in the abdominal cavity. The case, unfortunately, fell into his hands too late and the patient only survived two days. These cases, though few in number, certainly teach us that the work done in this direction is encouraging, and although a large percentage have died, it only warns us of the extreme importance of an early diagnosis and prompt surgical interference. It becomes our imperative duty in every case of post-puerperal trouble to make a thorough investigation of the case on the appearance of the first symptoms, and should a fullness be found on either or both sides of the uterus, accompanied by pain on touch, and with constitutional symptoms of gravity, there should be no hesitation as to the course to pursue. This being secured our present high mortality, of one woman out of every hundred delivered in large cities, as recently stated in a statistical paper on lying-in charities in the United States, must be largely diminished, and the fatal influences now surrounding our parturient women must become infinitely less.

DR. J. PRICE, remarked that the operation in this case was difficult and tedious, and was done with great care. He believes that conception can take place coincident with desquamative salpingitis. Salpingitis, even of gonorrhœal origin, may affect one tube only, and the other, being normal, may give exit to an ovule. Six months ago, he removed a large pus-tube from the right side; the woman is now four months pregnant. If he finds induration and distension of a tube, with inflammatory symptoms during the post parturient period, he does not hesitate to operate at once; the operation involving less danger to the patient than the rapid progress which the inflammatory process will take at that period. He read from a letter from Mr. Tait: "There can be no doubt as to the frequency of the occurrence of puerperal pyosalpinx, and what we want to do, is to hammer at people until we get them to open the abdomen in primary puerperal peritonitis." Dr. Price does not think septic post-partum salpingitis would be unilateral. He would also call attention to the extreme degree of degeneration that has taken place in the tissue of the tubes themselves, and most commonly unilateral only; they are quite cheesy in character. This change could not occur in so limited a space of time, a few days only.

DR. LONGAKER remarked that one of the four cases, referred to by the author of the paper, was a patient who was under his care and who died forty hours after operation. Briefly, the history of the case is as follows: A young woman, from Maryland, came to my office, being in the sixth month of her first pregnancy, for treatment for a profuse mucopurulent discharge having all the characteristics of a recent gonorrhœa. A month later premature labor set in. The child did not live. The placenta came away entire. Four days after labor she began to complain of severe pain in the left inguinal and hypogastric regions, paroxysmal and associated with great tenderness. The tongue was dry, but there was no nausea or vomiting. There was no chill, but the temperature was slightly elevated. The same symptoms continued for the next two days. On the morning of the eighth day, 7 A.M., she began to complain of intense cutting pains, temperature 96.5, pulse 96. Four hours later, under the free use of morphia, the pain was relieved, the temperature had risen to 102° and the pulse to 120. Dr. Jas. Price kindly saw the case with him and they agreed on the advisability of laporotomy. During the afternoon her temperature continued to rise, reaching 104° in the evening. On the following day she was much better, was free from nausea and vomiting and had no severe pain. Owing to this apparent improvement, Dr. Longaker allowed himself to be persuaded to put off operating. The abdomen was opened Feb. 14, 1887, the ninth day after delivery, and nearly sixty hours after the onset of acute peritonitis. General peritonitis and a large quantity of pus in the left region of the left comus uteri, exceedingly foul in odor, were found: the left tube was removed, it was an inch in diameter. The uterus was fairly involuted, it was firmly fixed in the pelvis. The wound drained freely, but incessant vomiting set in and the patient died forty hours after the operation. Is it not assuming too much to say these cases had pyosalpinx before conception? He is sure such was not the case in his patient. Though she had lived irregularly with a man for some five years, she had at no time such symptoms as would lead us to suspect this disease. It would be possible, if pyosalpinx be the consequence of a poison from without, to find entrance to the tubes during the first three and a part of the fourth month before decidua vera and reflexa became firmly united, but the result would most likely be an abortion at the time of the invasion. The morbific matter probably obtains access to the tubes after parturition is completed, and owing to the combined circumstances, acts in an explosive manner. Is not the pyosalpinx originated after labor as the result, it may be, of a gonorrhœa contracted between conception and labor, or before conception?

DR. HIRST presented a specimen from a case of

VIRULENT PUERPERAL SEPSIS,

by permission of Prof. Parvin, in whose service the case occurred. The specimens are interesting, not merely because they come from a case of puerperal fever, which unfortunately is not a rare disease, but from the rapidity with which the disease terminated fatally, and from the possible point of entrance of the septicæmic poison. The history of the case before delivery presents nothing worthy of note. Immediately after delivery the temperature was 99.5° and in spite of the most energetic antiseptic treatmeant of the vagina and uterine cavity, the temperature rose to 102°, but dropped again to 99.5°, only to rise again to 102°, where it remained till the woman's death, about seventy-two hours after the birth. The post-mortem examination showed diphtheroid patches in the vagina extending into the cervical canal. The uterine cavity and walls were normal, the peritoneum, tubes and ovaries healthy, the kidneys were the seat of numerous metastatic abscesses, and there were several infarcts in the liver. The lungs were healthy. The rectum was covered

with extensive patches of diptheroid membrane, a very interesting condition, for it indicates the possibility at least, that here was the point of infection, and if this is the case, this specimen at once assumes considerable importance, for he knows of only three such cases recorded in medical literature, one by Winckel, the others by Koester and v. Recklinghausen. These specimens may well serve to call attention to the possibility of infection by the administration of enemata, and to the importance of observing the most minute precautions as to the chemical cleanliness of every instrument that may come in contact with the parturient or puerperal woman.

(*To be continued.*)

FOREIGN CORRESPONDENCE

TAIT AND PEAN.

Dear Dr. Fenger:—On Sunday evening, March 27, I called at the residence of Mr. Lawson Tait in Birmingham. As dinner-time was near at hand, I was invited to remain to meet some of his personal and professional friends. As I had been in training for some time to acquire the proficiency of eating two dinners in rapid succession, I readily consented to avail myself of this opportunity to meet the great laparotomist in the sanctum of his own home. Mrs. Tait is proud of the distinction her husband has attained, and takes a deep interest in his work. I found it quite difficult to keep Mr. Tait in the channel of thought for discussing subjects of professional interest upon which I wished to obtain information. The evening was devoted to social pleasures and the many good things spread upon the table, and I had to submit to the inevitable. During my conversation about my prospective trip to the Continent, I was made to understand that German gynecology was not appreciated in this part of England, and that it had done little or nothing towards the advancement of modern gynecology. If I had met with such an assertion under different circumstances I should not have hesitated a moment to resent most emphatically such an insinuation, and in support of my arguments I should have quoted the results of scientific investigations and conscientious work of such men as Schrœder, Winckel, Olshausen, Hegar, Kaltenbach, Sänger and others, whose names are household words wherever modern gynecology is known and appreciated; but under the existing conditions I had to control my temper and leave the remark unchallenged.

Mr. Tait takes great interest in specimens of antiquity, and his capacious house is one great curiosity shop. That the Tait family is childless became apparent to me by the kind attentions which were bestowed upon a fine specimen of a Maltese cat. In my mind the sight of that cat revived the memory of the useful purpose I had assigned to that brute in my researches in experimental surgery, but as I was aware that Mr. Tait entertains no kindly feelings towards experimenters, I made no suggestions in this direction. It is not necessary for me to give a description of Mr. Tait's personal appearance, as the photograph I sent you some time ago speaks for itself. If you add to the large head, the long and capacious chest and still more voluminous abdomen a pair of short legs, you have Mr. Tait as I saw him.

The next morning at 9 o'clock found me again at Mr. Tait's house, as the operations were to be performed in his private hospital, which constitutes a part of his house. I was shown into a room where a number of physicians had congregated. As we were all strangers to each other, silence reigned supreme until we were informed by one of the nurses that everything was ready. We filed up a flight of stairs and entered one of the rooms, where we found Mr. Tait standing by the side of the anæsthetized patient in his shirt-sleeves and a rubber apron. The temperature of the room was comfortable. A female assistant administered the anæsthetic, and a young physician stood opposite Mr. Tait ready to render assistance, but it soon became evident that his presence was more ornamental than useful, as the operator appeared to require no assistance. The few instruments that I saw were kept in clean pans. The often described bag containing the sponges was hanging from a nail upon the wall, and was taken down and a few sponges thrown in a basin of warm water. The patient's abdomen had not been shaved, and was now sponged off lightly and covered with a rubber cloth with a slit in the centre. The first patient was a lady about 50 years of age, suffering from an abdominal tumor which extended a little above the umbilicus. The abdominal incision was made quickly and was about 2½ inches in length. The omentum was found adherent to parietal peritoneum, and the adhesions were separated by tearing. As soon as the cyst was exposed it was tapped with the blunt fenestrated trocar devised by the operator. This instrument does not cut the tissues when it is pushed through the cyst wall, and consequently extravasation along the side of the tube does not take place, a source of trouble and danger attending the use of all trocars with a cutting edge. The pedicle of the cyst was twisted and appeared like an umbilical cord. The pedicle was transfixed with a long needle slightly curved at the end, and threaded with medium sized Chinese silk which, after the needle was withdrawn, was tied into a Staffordshire knot. The operator showed his unlimited confidence in this method of tying by dropping the pedicle at once in every instance, without examining the cut surface or separately ligating any of the visible vessels.

The immense experience Mr. Tait has had in this manner of securing the pedicle certainly entitles him to speak with authority, and after seeing him tie five pedicles I am convinced of the advantages of the Staffordshire knot over the ordinary methods of tying, and should recommend its general adoption. During the whole operation I observed that the abdominal wound was kept practically closed, either with the cyst, the pedicle, a sponge or the fingers of the operator. This I observed not only in this case but in all of the three cases, and to this circumstance, undoubtedly, a great share of the wonderful success

[1] By permission of Drs. Fenger and Senn.

of Mr. Tait must be ascribed. The operations are done, as it were, subcutaneously, thus reducing the danger from infection to a minimum, provided the hands of the operator, the instruments and the sponges are aseptic, and that this is the case in Mr. Tait's practice I became convinced, and his results only corroborate this statement. Mr. Tait may not be an antiseptic surgeon, but he is certainly, in principles and practice, an ideal aseptic surgeon, whether he is willing or unwilling to acknowledge such a designation. The abdominal wound was closed with four deep sutures. A small gauze compress and a thick layer of cheap cotton, with a wide flannel bandage, constituted the dressing. Time of operation and dressing, twelve minutes.

As soon as the operation was completed, the visitors were requested to retire to the same room, where I spent half an hour in meditation, trying to unravel in my own mind the mysteries which had led this wonderful man to such unparalleled success, when I was aroused from my dreaming condition to reality by another message that everything was ready. The little crowd of seekers for knowledge were led into another room, where we could hardly find time to arrange ourselves around the table when Mr. Tait was already in the abdomen with his bulky index finger, searching for the ovaries. In this case the incision was a mere button-hole. We were informed that the removal of both ovaries and tubes would be done for the purpose of preventing pregnancy in the future, as the patient had suffered greatly during and after delivery on account of a contracted pelvis, including the formation of a vesico-vaginal fistula, which, however, had been cured by operation. Both ovaries and tubes were removed. It was also stated that the patient was suffering from prolapse of the uterus, and this opportunity was utilized and the uterus was stitched to the inner surface of the abdominal wound after both tubes and ovaries had been removed. The whole operation, including the dressing, occupied only seven minutes. I forgot to mention before that the dressing is first fastened upon the abdomen with numerous strips of adhesive plaster which overlay each other, and embrace about two-thirds of the circumference of the body, over which another cotton compress is applied, and retained with a broad flannel roller.

To me the indications which had led to the removal of the ovaries and tubes in this case afforded abundant food for serious thought. There can be no question in my own mind, and in the mind of any one who has the well being and happiness of his fellow-beings at heart, that it was not desirable that this woman should again be exposed to the dangers of another pregnancy, but as a practical American it occurred to me that it would have been wiser to resort to the less hazardous procedure of unsexing her husband, which would have certainly secured the same immunity at a minimum risk to life, and morally would have been more justifiable. This poor creature had suffered untold agonies, and why submit her to such a serious operation to procure sterility, when the same object could have been reached without any danger to life by unsexing the other party?

The third operation was set for 12 o'clock. I was told the evening before that this patient was probably suffering from a pelvic abscess, and I was exceedingly anxious to see the operation devised by Mr. Tait for the radical cure of this often intractable affection. The abdomen was again opened by an incision only sufficiently large to introduce two fingers. A brief digital exploration resulted in the announcement that the swelling in the pelvis was not an abscess, but a small fibroma of the uterus. As it was claimed that this tumor must be the cause of the recurring attacks of pelvic inflammation, it was decided to again remove the uterine appendages. One of the ovaries was adherent, and required more than the usual length of time for its removal. Duration of operation and dressing, nine minutes. The explanation of the cause of the pelvic inflammation was new to me, as I had always entertained the idea that submucous and interstitial myo-fibromata of the uterus, even when of large size, seldom give rise to inflammation of the adjacent or contiguous tissues, but for the sake of the patient I hope that the interpretation of the case was correct, and that the operation will be the means of preventing future attacks, as the patient who has lost one of her most important organs is certainly entitled to an equivalent of happiness in another direction.

From what I gleaned from my observations in the practice of Mr. Tait, I have come to the following conclusions: 1. He is a skilful and dexterous operator. 2. He depends on a diagnosis by digital exploration in the majority of cases. 3. He removes the ovaries and tubes in cases for indications which few gynecologists would be willing to accept as justifiable for such a serious procedure. His wonderful success may be attributed to: 1, aseptic surgery; 2, small incisions; 3, no unnecessary exposure of peritoneal cavity; 4, perfect familiarity with pelvic and abdominal surgery as far as the mechanical performance of operations is concerned; 5, rapid operating; 6, careful personal supervision in the after-treatment. There can be no question that much of his success also depends on the fact that he performs his operations almost without assistance, and in this respect all laparotomists should lose no time in imitating his example. With all his faults, Mr. Lawson Tait has done much towards the advancement of gynecology, and we may learn from him many a valuable lesson which will add to our success in practice.

I arrived in Paris via London, Dover and Calais, March 29. My principal object in visiting Paris was to see some of the abdominal work of Péan. In the evening I called at his residence, but failed to see him, as he had gone out to make his evening visit. In the absence of her husband Mrs. Péan kindly invited me to attend his operations next morning at the Hôpital, rue de Sarlé, where most of his abdominal operations are performed. The next morning at 9 o'clock I met him at the hospital, and was fortunate enough to see him perform two of the most difficult operations in surgery during the forenoon. Péan is a large man, with black hair and side whiskers, and is 58 years of age. His face shows intelligence and determination, and his whole appearance indicates a

man of superior knowledge and great courage. As soon as I entered the operating-room my attention was attracted by the display of numerous instruments; the number of large and small hæmostatic forceps could not be counted, but there must have been at least more than a hundred. Usually he has four assistants. The operator wore a fur-lined vest and rubber apron. The operating-room is quite small, and was not specially heated for the operations. Chloroform is used exclusively as an anæsthetic. Only five visitors were present at this operation, which gave us a good opportunity to follow every step.

The first patient was a woman about 35 years of age, who had been suffering for many years from a myo-fibroma of the uterus which at present reached above the umbilicus. Shaving and disinfection with a sublimated solution (1–1000) was done by Péan himself after the patient was under the influence of the anæsthetic. During the operation the sponges are in the hands of two sisters; one of them washes them in warm water, while the other wrings them out of a 1–1000 solution of corrosive sublimate and hands them to the operator or one of his assistants. The instruments are all immersed in a 5 per cent. solution of carbolic acid, and the hands of the operator and his assistants are thoroughly washed and disinfected before the operation. During the operation the abdomen of the patient is covered with a rubber cloth with a slit in the centre. The incision through the abdominal wall extended from above the umbilicus to the pubis. Before opening the peritoneum all hæmorrhage was carefully arrested with forceps, which were allowed to remain. On opening the peritoneal cavity to the full extent of the wound the tumor came into view, but could not be delivered through the wound by manipulation, and the operator transfixed it from side to side with a large, stout curved needle supplied with a handle, which gave him an opportunity to make traction at the same time one of the assistants made compression of the abdomen from behind in a forward direction, and the combined forces readily brought the tumor out of the wound. The broad ligament on each side of the tumor, with the enormously distended vessels, was compressed with two forceps and divided between with a pair of scissors. After reaching the base of the tumor in this manner on both sides, an elastic tube was applied and kept in place at the point of crossing with a pair of forceps. As soon as the abdomen was opened an assistant protected the omentum and bowels with a dry towel which had been rendered aseptic by boiling in a sublimated solution; this precaution is kept up during the entire operation, so that none of the abdominal contents are brought into view. These towels are used whenever it becomes necessary to protect the peritoneal cavity, and sometimes several are in use at the same time, and when they become saturated with blood they are changed.

During the whole operation the operator sits between the patient's legs, a position which certainly offers great advantages in operations upon the uterus which are necessarily prolonged. After the elastic constrictor was applied the tumor, which was composed of many portions, was removed in large slices with a large amputating knife, and whenever hæmorrhage occurred it was at once arrested by applying the large compression forceps. At times at least twenty-four forceps could be counted in the abdomen. When the base of the tumor was reached the bladder came into view in front, and injury to its walls was carefully avoided by ascertaining its exact position by means of a catheter. In tying the short pedicle, composed of the uterus itself, a large, blunt, curved needle, mounted on a handle, was passed on each side of the uterine canal, and the double ligature cut as the needle was withdrawn; this left four ligatures in two tracts. The outer portion on each side was tied with one of the ligatures which secured the large vessels on each side of the uterus, and the central portion was secured by tying two of the ligatures in front and behind. The remnants of the tumor above the ligatures were carefully dissected out, the mucous membrane of the uterine canal excised and the canal closed with deep silk sutures, all visible vessels were carefully tied with catgut, the surface cleansed, closed and dusted lightly with iodoform. The cut surfaces were brought into accurate apposition by suturing the muscular tissue with silk sutures, and finally, a row of catgut sutures for the peritoneal cavity. No hæmorrhage was observed after removing the elastic constrictor, and the operation was almost bloodless. The pedicle was dropped into the abdominal cavity, and after a careful cleansing of the wound it was closed in the usual manner. The wound was covered with a compress of sublimated gauze which was fastened with strips of adhesive plaster, over which a thick layer of absorbent cotton and flannel bandage was placed. The operation lasted two hours, and as the room was only moderately warm, it was not surprising that the patient showed some symptoms of collapse, from which, however, she recovered a few hours after the operation. Péan can well be called "master of forceps," and although he may carry the use of forceps to extremes, there can be no doubt that a full supply of such hæmostatic forceps as he uses will be of great use to the surgeon in performing bloody operations, and a source of comfort in times of greatest need, when troublesome and sometimes almost uncontrollable hæmorrhage stare him in the face. Péan shows no fear of blood, as he has full confidence in his forceps, which are often allowed to remain in the wound when ligation appears difficult or impracticable.

After this operation was completed a woman was brought in who had suffered for years from excruciating pelvic distress which had failed to yield to the usual treatment. The question presented itself whether the ovaries should be removed to bring about the anticipated climax, but, as Péan had failed in many instances to obtain the desired result by such a procedure, he has in a number of instances resorted to vaginal hysterectomy, and with better success. After the patient was under the influence of the anæsthetic the parts were disinfected, and the operation made with the patient in the exaggerated lithotomy position. The vagina was distended with two flat retractors, and the uterus drawn down with a

vulsellum forceps. The circular incision, through the mucous membrane, was made with a scalpel, and the tissues around the uterus seized step by step with compression forceps, and the dissection made with scissors, fingers and blunt instruments, almost bloodlessly. At first the Douglas cul-de-sac was opened, and an attempt made to retrovert the uterus sufficiently so as to bring the fundus through this opening; this, however, failed. Next, the peritoneal cavity was opened in front of the uterus and the uterus was brought out through this opening. The round and broad ligaments were secured with forceps. After the uterus was removed, almost without the loss of a drop of blood, about twenty forceps occupied the vagina, and were allowed to remain. A few small pieces of sponge, secured with a string and dusted with iodoform, were introduced along with the forceps. The forceps are allowed to remain for twenty-four hours, when they are removed. It is said that secondary hæmorrhage never was observed after performing vaginal hysterectomy in this manner. The operation lasted an hour.

The next day I had an opportunity to see another supravaginal hysterectomy at the same place. The tumor reached to the ensiform cartilage and displaced the viscera in an upward direction. The patient was about 40 years of age, and had become quite anæmic from repeated losses of blood. The tumor was irregular in contour and presented a nodulated surface, owing to numerous small subserous myofibromata. The abdominal incision in this case extended the whole length of the linea alba, and the tumor was lifted out from the abdomen with the same instrument. Copious hæmorrhage took place from the punctures, which was promptly arrested by compression with sponges. The remaining steps of the operation were the same as in the first case, and the time occupied in its completion was two hours.

Péan is an untiring worker. Endowed with a vigorous body and an active brain, he finds no pleasure in rest. His voluminous works testify to his zeal and fertility as a writer, and the clinical material they embody shows an amount of personal experience seldom acquired by a man of his age. I was informed that frequently he performs from six to seven operations during a forenoon at the Hôpital St. Louis. Perhaps one of the best evidences of the high esteem in which he is held in the hospitals with which he is connected, is that his aged assistants submit humbly to his frequent and noisy scoldings, and that he is permitted to swear, and swear as only a Frenchman can, in the presence of the sisters, who evidently fail to appreciate that part of the performance, and who lose no time to do all they can by way of repair in silent prayer. Very sincerely your friend, N. SENN.

MISCELLANEOUS.

HEALTH IN MICHIGAN.—For the month of May, 1887, compared with the preceding month, the reports indicate that the cholera morbus increased, and that pneumonia, influenza, rheumatism, bronchitis, consumption of lungs, and tonsilitis decreased in prevalence. Compared with the preceding month, the temperature in the month of May was much higher, the absolute humidity was much more, the relative humidity was about the same, the day and the night ozone were more. Compared with the average for the month of May in the nine years, 1879–1887, intermittent fever, remittent fever, consumption of lungs, scarlet fever, diphtheria and diarrhœa were less prevalent in May, 1887. For the month of May, 1887, compared with the average of corresponding months for the nine years, 1879–1887, the temperature was higher, the absolute humidity, the relative humidity and the day ozone were more, and the night ozone were less.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of May, 1887, at thirty places, scarlet fever at thirty-two places, typhoid fever at four places.

Reports from all sources show diphtheria reported at five places more, scarlet fever at seven places less, typhoid fever at four places less, measles at fourteen places more in the month of May, 1887, than in the preceding month.

COLORED NURSES.—The Atlanta University has established a training school for colored nurses, a much needed institution.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 4, 1887, TO JUNE 10, 1887.

Major B. E. Fryer, Surgeon, granted two months' leave on account of sickness, with permission to apply for an extension. S. O. 28, Div. Pacific, May 2, 1887.

Major B. E. Fryer, Surgeon, granted sick leave for one month. S. O. 28, current service Div. Pacific, amended by S. O. 29, Div. Pacific, June 2, 1887.

Major W. S. Tremaine, Surgeon, sick leave still further extended two months, on account of sickness. S.O. 129, A. G. O., June 6, 1887.

Capt. Paul R. Brown, Asst. Surgeon, granted leave of absence for four months. S. O. 126, A. G. O., June 2, 1887.

Capt. A. H. Appel, Asst. Surgeon, granted leave of absence on surgeon's certificate of disability for six months. S. O. 127, A. G. O., June 3, 1887.

First Lieut. Leonard Wood, Asst. Surgeon, ordered for temporary duty at Ft. Huachuca, A. T.; relieved from duty at hdqrs. Dept. Ariz. S. O. 126, A. G. O. June 2, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING JUNE 11, 1887.

Surgeon W. K. Van Reypen, ordered June 8 for examination preliminary to promotion as Medical Inspector.

Medical Inspector Somerset Robinson, ordered June 20 before a Retiring Board convened at Mare Island, Cal.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JUNE 4, 1887.

Surgeon C. B. Goldsborough, detailed to represent the Service at the meeting of the American Medical Association at Chicago, Ill., June 6, 1887. June 1, 1887.

P. A. Surgeon C. E. Banks, when relieved to rejoin station at Boston, Mass. May 23, 1887.

Asst. Surgeon Seaton Norman, when relieved to rejoin station at Cape Charles Quarantine. May 26, 1887.